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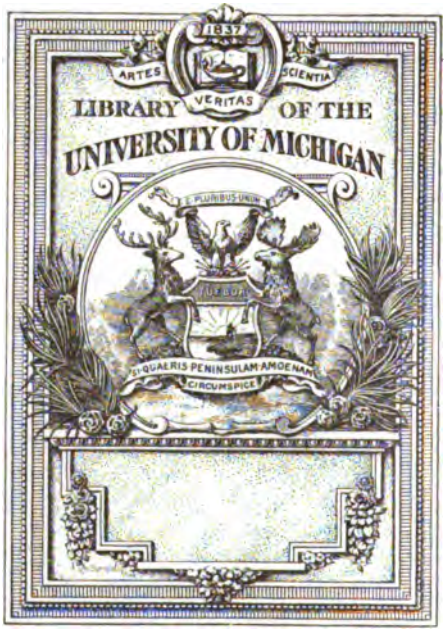

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WESTERN MEDICAL REVIEW

A JOURNAL OF MEDICINE AND SURGERY.

Published Monthly by WESTERN MEDICAL REVIEW COMPANY,
1238 O Street, Lincoln, Nebraska. Per Annum, $2.00.

The WESTERN MEDICAL REVIEW is the official organ of the Nebraska State Medical Association and is sent by order of the Association to each of its eight hundred members.

H. WINNETT ORR, M. D., EDITOR.

Entered as second-class mail matter at Lincoln, Nebraska, post-office, under the Act of March 3, 1879.

VOL. XI. LINCOLN, NEB., JANUARY 15, 1906. NO. 1.

EASTWARD THE STAR OF MEDICINE TAKES ITS WAY.

Signs are not wanting that in the near future the Orient may be teaching western peoples something in medicine as well as in the art of war. The excellent basis on which Japanese medicine is building is well known and now it is the eye-surgeons of India who from the almost fabulous wealth of material at their command are drawing conclusions which promise to be of great value. Major Henry Smith, of Julbundur, for instance, operates on something like a thousand cataracts every year, and, basing his conclusion on some 11,000 extractions, he asserts that the extraction of the lens in the capsule is as far ahead of the ordinary operation as litholapaxy is in advance of lithotomy. Hitherto extraction in the capsule has been systematically practiced only at the clinic of Pagustecher in Wiesbaden, where the lens is removed with a spoon or scoop. Major Smith, however, uses the scoop only in exceptional cases; as a rule the lens in its capsule is expelled by steady pressure on the cornea below, with counter-pressure above, through a large corneal incision. His results are remarkably good, the advantage of the method being especially marked in the infrequency with which it is followed by iritis. Smith says that the details of this operation are difficult to impart except by ocular demonstrations, and he hints that eye-surgeons might do well to visit India, where, in his opinion, "a man will learn more about the surgical diseases of the eye, including cataract, by looking on at some of our experienced Indian operators, in their busy season, for one month, than he will do in several years by attending post-graduate clinics and lectures on the subject in Europe."—H. GIFFORD, Omaha.

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Notes and News.

DR. F. SAXENBERGER, of Beatrice, Neb., died December 13.

DR. MORROW has returned to Fremont from Tekamah, Neb.

DR. THOMAS E. STACK has opened an office at Powell, Neb.

DR. A. F. VAILLIER has opened an office in Columbus, Neb.

DR. GEISE, of St. Louis, has recently located at Holdrege, Neb.

DR. WARRICK, of Hastings, Neb., has moved to Holdrege, Neb.

DR. HALL, formerly of Cherry county, has located in Palmer, Neb.

DR. JOHANN WEISS, of Hildreth, Neb., has moved to Grand Island.

DR. H. J. ARNOLD left December 22 for Los Angeles to remain for awhile.

DR. FRED H. KUEGLE, of Omaha, will soon open an office in Madison, Neb.

DR. D. C. STINSON is gradually improving from an attack of typhoid fever.

DR. HAPEMAN, of Minden, Neb., will spend part of the winter in New Orleans.

DR. CALVIN SNOOK, of Fairfield, Ia., died at his home the first week in January.

DR. G. H. MARVEL, of York, has located in Aurora for the practice of medicine.

DR. W. T. REYNOLDS and family, of Hebron, Neb., have moved to Kansas City, Mo.

DR. ARNOLD, of Columbus, has sold his practice and moved to National City, Cal.

THE Gage County Medical Society held its quarterly meeting in Beatrice January 2.

DR. MARSELLUS, of Loomis, Neb., has sold his practice to Dr. Olson, of Davey, Neb.

THE Fremont County Medical Society held its regular meeting at Sidney, Ia., January 3.

THE Valley County Medical Association held one of its regular meetings at Glenwood, Ia.

DR. H. I. SHULL, of Auburn, Neb., has given up his practice and will go on the retired list.

A WELL attended meeting of the Mills County Medical Society was held in Ord January 9.

ON the 12th of December Dr. Oscar Luse was married to Miss Cecelia Siler, of Ord, Neb.

DR. M. V. SAMPLE, of David City, and his brother of Kearney, will build a hospital in Kearney.

DR. H. D. ROOT died January 6 at the home of his daughter, Mrs. B. A. Root, at Phillips, Neb.

THE Elkhorn Valley Medical Society met at Norfolk January 16 with both afternoon sessions.

DR. JONES and family, of Fort Morgan, Colo., left in November to spend the winter in Kentucky.

DR. C. F. BELLINGER, of Council Bluffs, Ia., has left for a year's absence in Asia and the far east.

DR. MATHIS, of Chanute, Kan., and Miss Aldeen Lynch, of Pueblo, Colo., were married in November.

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DR. D. NEVILLE, of Upland, has been in Chicago for six weeks attending Dr. Byron Robinson's clinics.

THE semi-annual meeting of the Burt County Medical Association was held at Oakland in December.

DR. TAYLOR HARRIS, of Central City, Neb., has accepted a position in a medical institute in Dietz, Wyo.

ON January 9 the mid-winter meeting of the Elkhorn Valley Medical Society was held at Norfolk, Neb.

THE annual business meeting of the Wyoming State Medical Association was held at Cheyenne, December 7.

THE state board of health has appointed H. P. Marble, of Humboldt, to succeed L. C. Edwards as secretary.

DR. H. F. RAND and Dr. S. S. Herr, of the Colorado Sanitarium, have returned to Boulder from Nebraska.

THE last quarterly meeting for 1905 of the Saline County Medical Society was held in Crete, December 7.

THE Page County Medical Association met in Coin, Ia., December 21. Officers for the ensuing year were elected.

THE Lancaster County Medical Society met in Lincoln during December and elected officers for the following year.

DR. N. T. JOHNSON, of Upland, Neb., recently returned from a trip to Cripple Creek, Colorado Springs and Denver.

THE Hardin County Medical Society held its annual meeting at Eldora, Neb., December 4. The election of officers took place.

DRS. MORSEMAN AND WELLS, of Omaha Medical College, have been appointed to succeed police surgeons Langdon and Cox.

DR. WINTERMEYER, who has been a practicing physician in Denver, Colo., for several years past, expects to move to Laramie, Wyo.

DR. GEO. A. IRELAND left December 23 for New York city to take a three months' post-graduate course in medicine and surgery.

DR. H. J. SLATER, of Columbus, will go to Kansas City on the 8th of January to complete a term of post-graduate lectures which he is taking.

DR. E. M. TYLER has been appointed to fill the vacancy on the local pension examining board caused by the resignation of Dr. J. S. Wilson of Johnson.

IN December Dr. Harry Everett returned from Baltimore, where he has been pursuing a course in medical research for the past three months at Johns Hopkins.

DR. J. M. STRAIGHT, who has been the manager of the Hastings Independent Telephone Company, has resigned that position and will resume the practice of medicine.

DR. J. G. AGEE has located at Graf, Neb. Dr. Casterline, who has been there for some time, has been compelled to give up his practice on account of poor health and has left town.

THE regular meeting of the Franklin County Medical Society was held in Macon on Friday, December 8. A fee bill will be brought before the next meeting in Franklin on March 2, 1906.

THE Wesleyan Hospital, of University Place, has filed articles of incorporation with the secretary of state. The capital stock is $50,000 and the incorporators are C. E. Coffin, H. R. Palmer and J. O. Everett.

DR. J. C. WILHITE, of Fort Dodge, Ia., convicted two weeks ago of the

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illegal practice of medicine, was given the minimum sentence allowed by the law on December 9, Judge Richards imposing a fine of $300 with costs.

At the last meeting of the Omaha council on December 12 a resolution was entered to make a contract with Dr. Langfeld and Dr. Crowley, of Creighton Medical College, to examine milk, water and all kinds of possible disease-producing agencies for $2,000 a year.

The national government through its department for the collection of internal revenues has forbidden the sale of a number of patent medicines in Nebraska except under the same laws as those governing the sale of intoxicating liquors. This means that such medicines as Peruna and Duffy's Malt Whiskey cannot be sold except by saloon-keepers in less than five-gallon lots.

The members of the Hall County Medical Association held their annual meeting at the office of the president, Dr. H. D. Boyden, in Grand Island, January 4. The election of officers resulted in the choice of Dr. Stone, of Doniphan, president; Dr. Weeter, of Grand Island, vice president; Dr. McGrath, of Grand Island, secretary and treasurer; Dr. Roeder, of Grand Island, delegate; Drs. Boyden, Sutherland, and Hoge, censors.

Book Reviews.

Fractures and Dislocations. A Treatise on Fractures and Dislocations. For Students and Practitioners. By Lewis A. Stimson, B. A., M. D., LL. D., Professor of Surgery in Cornell University Medical College, New York; Surgeon to the New York and Hudson Street Hospitals, etc. New (4th) edition, thoroughly revised. Octavo, 844 pages, 331 engravings, and 46 full-page plates. Price, cloth, $5, net; leather, $6, net; half morocco, $6.50, net. Philadelphia and New York: Lea Bros. & Co. 1905.

This is the fourth edition of this notable work, containing much new and valuable material concerning forms of fracture in or near joints, gained by the use of X-rays and by frequent open operations. Especially is this true of fractures and dislocations of the carpal bones and of fractures of the lower end of the humerus in the young. There is also much new matter on the operative reduction of old dislocations, while a number of new illustrations, mainly from photographs, have been added or substituted, and twenty X-ray photographs have been added in the plates. This book is of interest and value to the surgeon and to the general practitioner as well, dealing as it does with the practical aspects of lesions which are among the commonest of traumatic injuries.—L. B. P.

Green's Pathology. A Text-Book of Pathology and Pathological Anatomy. By T. Henry Green, M. D., F. R. C. P., Consulting Physician to Charing Cross Hospital, London. New (10th) edition. Thoroughly revised by W. Cecil Bosanquet, A. M., M. D., F. R. C. P., Assistant Physician to Charing Cross Hospital. Octavo, 606 pages, 348 engravings and a colored plate. Price, cloth, $2.75, net. Philadelphia and New York: Lea Bros. & Co., 1905.

Green's Pathology and Morbid Anatomy needs no introduction, as it has run through nine editions previous to this one, and is revised and enlarged with each successive edition to keep pace with the growth of pathologic science. This work has a classical quality which comes from its long career of usefulness. The addition and revisions made have been most notable in the fields of animal parasitology and of immunity in infectious diseases.

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Bosanquet has added a short chapter on "Auto-intoxications and Nutritional Diseases." Some of the older illustrations have been replaced and new figures added. Some diagrams illustrating the phenomena of immunity have been inserted from Bosanquet's book on "Serums, Vaccines, and Toxines." Green's Pathology is a book which comes with the best of recommendations and with a prestige among students and physicians gained through real merit.—L. B. P.

Original Articles.

TRYPANOSOMES AND DISEASE.*

HENRY B. WARD, THE UNIVERSITY OF NEBRASKA.

The Protozoa or single-celled animals include four great groups or classes: the Sarcodina, or amoeboid forms, typically represented by the common Amoeba; the Sporozoa, or spore-producing forms, including *inter alia* the malarial organism; the Ciliata, or ciliated forms such as Paramecium; and the Mastigophora, or flagellate forms, to some of which your attention is called in this paper.

The order of the Protomonads, which are among the simplest of the class, includes one family, the Trypanosomida, characterized by the presence of an undulating membrane along one edge of the body which is usually two-edged with a more or less prominent spiral twist. The species have one flagellum directed anteriad and rarely also another at the posterior end.

The nucleus is large and located near the center of the spindle-shaped body. A smaller mass which stains like chromatin is located near the vacuole at one end. It is continuous with the margin of the undulating membrane and with the flagellum, both of which have the same color reaction when stained. This body has been denominated the micronucleus, centrosome, or blepharoplast, and is believed to give rise to the locomotor apparatus and to control the same. The trypanosome as thus described resembles certain spermatozoa, e. g. of *Bombinator,* and also to some extent *Spirillum* and *Spirochaete.*

These forms multiply by unequal longitudinal division and rarely by multiple division or rosette formation, while complicated so-called sexual processes are also known to occur at times. The trypanosomes are agglutinated into masses by foreign or immune blood sera and have been cultivated by Novy and McNeal on blood agar.

The family includes a number of genera and many species, all of which are parasitic. Some are found in the body cavity and

* Read before the Nebraska State Medical Association, Beatrice, Neb., May 2 to 4, 1905.

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alimentary canal of invertebrates and the lower vertebrates, but most of the known species are haematozoa and occur mainly in birds and mammals. Here they give rise to diseases which rank among the most fatal known, and are consequently of great economic importance. Brief mention of the various species will show their range and pathological importance.

Trypanosoma Lewisi, first seen by Gros in 1845, occurs in the rat. It has been reported from Europe, Asia, Africa, and North America. It occurs frequently in rats in Lincoln and I have here stained blood-smears to demonstrate to any who may be interested.

Tr. Brucei is the cause of the nagana or Tse-tse fly disease in Africa south of the Sahara.

Tr. Theileri produces the gall-sickness (galziektè) of cattle in South Africa.

FIG. 1.—Trypanosoma Lewisi. Rosette from blood of rat. After Francis.

Tr. dimorphon gives rise to a disease of horses in Gambia.

Tr. equiperdum causes the dourine, a sexual disease of the horse and ass in the Circum-Mediterranean region.

Tr. equinum produces mal de caderas among horses in South America.

Tr. Evansi is the cause of the surra among domestic mammals in India, China, Burmah, and the Philippines.

Some forms are also parasitic in man. The first description is hardly recognizable as such and the species examined must always remain uncertain from the indistinct description given. It was noted by Nepveu in 1898. The first recognizable account was published by Dutton in 1902. He found the parasite in the blood of an Englishman who had lived on the Gambia river. (Fig. 3.)

The case was under observation about two years and displayed the following clinical features: general weakness, irregular lapsing fever lasting from one to four days with apyrexial periods of two to

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five days, some edema, injection of the skin, enlargement of the spleen, constant high pulse rate and hurried breathing. These symptoms were associated with no definite organic lesions.

The most thorough search failed to yield any evidence of malarial organisms, and in apyrexial periods no organisms of any type were found in the blood. During the fever, however, from one to fifteen trypanosomes were detected in each blood-smear. In fresh blood the parasite moved with the flagellum ahead but occasionally reversed direction for a short distance. In rapid movement the body rotated on its longitudinal axis. In one case a mononuclear leucocyte was found to have engulfed a trypanosome so that only the flagellum and the anterior end of the body remained outside.

Since this, many other cases have been discovered on the Congo and Gambia rivers, and they concern equally natives and Europeans. Dutton's record in Senegambia of seven cases in little more than one thousand examinations show that the disease is not very rare in that region.

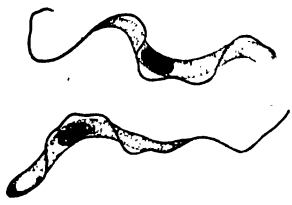

FIG. 2.—Trypanosoma gambiense. From cerebro-spinal fluid of sleeping sickness. More highly magnified than Fig. 3. After Sambon.

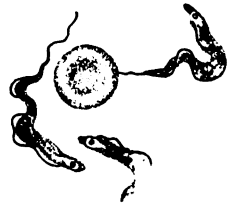

FIG. 3.—Trypanosoma gambiense. From blood of Englishman. The human blood corpuscle in the figure indicates the actual size. After Dutton.

In November, 1903, Castellani communicated to the Royal Society of England the discovery of a trypanosome found in the cerebrospinal fluid of natives afflicted with the so-called "sleeping sickness." Various unsatisfactory efforts had been made before that date to explain the cause of this strange malady, which is characterized by a gradually increasing drowsiness terminating in deep coma and death in from three to twelve months. Hyperemia of the arachnoid vessels is the only known pathological character. The disease has carried off an enormous number of natives within recent years and bids fair to depopulate certain regions in Africa. The subsequent communications of Bruce confirmed and extended Castellani's observations, and showed this parasite to be universally present in cases of this disease. Bruce regarded it as a new species,

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designated *Trypanosoma Castellani,* but although found in the cerebrospinal fluid, its distinctness from *Tr. gambiense* of the blood has not yet been established. (Fig. 2.)

Even in this short time much evidence has been accumulated to show that it is transmitted by the Tse-tse fly, *Glossina morsitans,* which occurs in dense swarms on the river and is wanting a short distance from it. Similarly the disease is frequent among the Congo fishermen, and unknown among other classes that do not visit the stream.

It may be noted that the species of trypanosomes are difficult to precisionate. The morphological features are only inexactly determined and the physiological characteristics are hardly studied at all. Easily distinguishable forms occur in the same host and also apparently similar forms cannot be raised in the one host. Thus R. Koch took rats with *Tr. Lewisi* and infected them also with *Tr. Brucei.* When a dog was inoculated with this blood *Tr. Lewisi* disappeared at once and *Tr. Brucei* multiplied rapidly. To judge from the history of other groups it will be in the interest of clearness and will avoid confusion and commingling the characteristics of separate forms if we accept provisionally these parasites from different hosts as separate species. Later the development of a suitable technic for differential diagnosis may show some of these to be identical species. It is essential that the life-history be worked out before the relationship of various forms can be decided.

Recent investigations have elucidated some important relations of trypanosomes to other forms. In the owl a blood parasite, *Halteridium,* has long been known, and Schaudinn has found that in the stomach of the mosquito, *Culex pipiens,* it becomes transformed into a trypanosome which presents three distinct types. Schaudinn regards these as male, female, and indifferent forms, and has been able to follow in detail the life-history. They are inoculated into the owl by the bite of the mosquito to begin again the phase of the life-history characteristic of that host.

The mechanism of transference to the warm-blooded host is extremely interesting, and as the parasites of human malaria may possibly be transferred in the same way it seems worth while to mention the details. *Culex pipiens* possesses esophageal diverticula which become distended with gas and may be termed "gas bags." The gas is carbon dioxide, which is evolved by a sort of yeast-like fungus always present in the insect's stomach from traces of glucose present in blood, or—much more abundantly—from glucose present

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in the plant juices which the insect occasionally sucks. At the commencement of the act of suction, when the insect has its proboscis buried in the skin of its victim, its body undergoes one or more violent contractions which eject the contents of its foregut and "gas bags" into the skin. These contents comprise gas, saliva, and whatever particular matter is present—viz., yeast cells and sporozöites. Schaudinn looks upon this contraction as a sort of dyspneal effort due to the entrance into its tracheae of the CO_2-laden air which bathes the skin. He succeeded in producing the contraction artificially by placing an infected culex on a cupped slide, with its proboscis in a drop of glycerine under a cover-glass, and its body projecting over the hollow. In this he evolved some CO_2 from a fragment of chalk and a droplet of acid, and he observed that the gnat's body underwent a violent contraction, which had the effect of expelling into the glycerine its contained gas, yeast cells, and sporozöites. Viewed teleologically, the effect of the injected CO_2 would be to paralyze the thrombocytes and in other ways to delay the coagulation of the blood. The hyperemia and pain caused by the bite he considers to be due to the enzyme of the yeast cells. He dissected out the "gas bags" and pushed them into a fine puncture in his own skin, with the result that the typical swelling, redness, and itching came on at once. The salivary glands he found quite inoperative. The effect of the "gas bags" appears to depend on the quantity of yeast cells contained in them, for it was much more marked when the yeast had been allowed to proliferate actively as the result of feeding the insect on plant juice. The fungus is not a true yeast, but a yeast-like stage in the life-history of one of the Entomophthoreae, fungi with which we are all acquainted in the shape of the well-known *Empusa muscae,* which kills flies in the fall of the year and causes their bodies to adhere to the window-pane surrounded by a white cloud of ejected conidia.

Once introduced into the owl the so-called indifferent forms enter the red corpuscles and transform into the *Halteridium* form. In this stage there is no multiplication such as takes place in human malaria; but at night, and also in the spleen and bone marrow, these parasites leave the host cells to swim about as flagellate forms in the plasma, only to return by day. Six days suffice to bring these forms to the point of multiple fission which takes place in the plasma and produces many minute flagellate forms that reinfect the corpuscles with *Halteridia.* Later arise the sexual forms which are transformed as already stated in the stomach of the mosquito into trypanosomes.

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This account recalls the life-history incompletely known thus far of the so-called Leishman-Donovan bodies. These structures were first described by Leishman in 1903 from cases of dumdum fever or kala-azar in India. They are small round or oval bodies, 2 to 3 microns in diameter, found in smears of spleen pulp and clearly differentiated from blood plates and nuclear detritus by the Romanowsky method. The theory that they were stages in the development of trypanosomes was advanced by their original discoverer, but was not accepted by Donovan, Ross and Laveran, who confirmed and extended the original account. Laveran indeed viewed them as parasites of the erythroblasts, much like the parasite of Texas fever in cattle, and named the species *Piroplasma Donovani.* Ross maintained their independent generic character and proposed for them the genus *Leishmania.*

Manson and Low called attention to the considerable number of cases with regularly enlarged spleen which could not have been included under previously known maladies, and proposed to include them under the term tropical splenomegaly. Such cases are characterized by a malaria-like initial condition which, however, progresses to a definite cachexia despite the generous use of quinine. With the enlargement of the spleen the anemia becomes more intense, and death supervenes in a few months. To this acute form of the malady a chronic type must be added which is milder and of longer duration, and in which consequently the ultimate fate of the patients is unknown. The name applied to this complaint in India is kala-azar and in Madras the records of a single hospital show 72 cases among 1,304 patients.

The parasites have been identified from the spleen, liver, bone, marrow, and from ulcers of the skin and intestinal mucosa. They are now known to be present in China, Tunis, Algiers, Arabia and Egypt in addition to the original region of discovery in India. Rogers has recently succeeded in cultivating this form in citrate of soda solution, when the bodies become transformed to flagellate organisms which are regarded by this author and others as trypanosomes. If his figures are correct they can hardly be such under the present definition of the genus, but they will fall into some nearly related group of flagellates. Further details regarding the structure and life-history will be necessary before passing a final decision upon this point. It seems clear that these bodies are very similar to those described by Wright from Delphi boil, if indeed not identical with them.

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Schaudinn has elucidated one other matter of great importance. A leucocytozoon of the owl also develops in the mosquito, *Culex pipiens,* and produces the same three types of flagellate organisms as found in the development of *Halteridium.* Some of the stages are too minute to see alone and are visible only when grouped into rosettes. The fully developed forms are exceedingly elongate and twisted, having precisely the appearance of the genus *Spirochaete.* Now this genus has been classed heretofore under the bacteria although the inability to cultivate it by ordinary means had suggested its lack of agreement with other members of the group. The best known species is *Spirochaete Obermeieri,* the cause of relapsing fever in man, which is believed to be transmitted by bed-bugs. Other species are regarded as the causes of various diseases in lower animals and are also probably transmitted by biting insects. The same is true of so-called human tick fever in the Congo, where the parasite is perhaps a *Spirillum* rather than a *Spirochaete.* The limits of these genera need most careful determination in order to decide which of the forms fall under the bacteria, unicellular plants, and which are flagellate protozoa, i. e. unicellular animals.

In conclusion it should be noted that certain most recent and as yet incomplete observations indicate that the cause of syphilis has been found in a flagellate organism of the type of *Spirochaete,* or at least closely related. It would be natural to expect that this group of flagellates, which contains so many disease-producing organisms that attack lower animals, should yet furnish the explanation of the etiology of human diseases hitherto unexplained. In maladies which are evidently germ-produced, it is more likely that the cause belongs to the unstudied Protozoa rather than that the refined technic of the modern bacteriologist has been unsuccessful in detecting the plant germ which produces it. Now that the attention of investigators has been directed to animal organisms as factors in the production of disease we may confidently expect the development of a new technic, the discovery of hitherto unsuspected organisms and the solution of the etiology of many heretofore unexplained diseases.

Administering Quinine to Children.—Bordet mixes the quinine with olive oil and puts the amount required into a teaspoonful of cold milk. The child takes this mixture easily.—La Escuela de Med. Mexico.

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VARIATIONS FROM ROUTINE NECESSARY IN SOME OPERATIONS FOR INGUINAL HERNIA.*

JOHN PRENTISS LORD, M. D., OMAHA.

Since its introduction, the Bassini operation for inguinal hernia has been the one almost universally employed by practically all of the surgeons of the world. It is an operation that is so satisfactory that it still holds first place in popularity. For some years, however, surgeons have recognized that in children transplantation of the cord is unnecessary, and hence it has been a common practice among some of them, including myself, to do a so-called natural method of closure, with apparently excellent results.

Girard of Berne, Switzerland, Furguson of Chicago, and Fowler of Brooklyn were the first exponents of this method in adults.

Halsted's operation for large or small herniæ, with deficient musculature, was superior to the Bassini, because it used the strongest structure (the aponeurosis of the external oblique) behind the cord to close the breach. The operation's defects, however, caused operators to search for improvement in what was manifestly a better operation, i. e., the Bassini. Therefore, when the typical operation was inadequate in the presence of anatomic deficiencies, the rectus muscle was appropriated by Bloodgood; this with the extra stitch of Coley above the emerged cord were improvements, and satisfied for a time; but so much anatomic transposition, as involved in transplantation of the cord, and the dragging over of the rectus was not ideal, and therefore the surgical world has been striving for improvements.

Girard, Wölfler, Andrews, Ferguson, Halsted and Bloodgood are the names perhaps most inseparably connected with the evolution of some of the more recent procedures used in dealing with the more difficult cases, and their closure is now effected with less violence to the tissues, more regard for anatomy, and less transgression of the first principles of plastic surgery, i. e., absence of tension.

Girard depresses the cord to the lowest point and utilizes the aponeurosis with the usual muscle structures in closure against Poupart's, and folds the lower flap of aponeurosis upwards as does Andrews, who covers the cord, which has been made to emerge less high than in the original Halsted. Thus the cord is in a double-walled aponeurotic canal. The operation gives the strength

*Read before the Nebraska State Medical Association, Beatrice, Neb., May 2 to 4, 1905.

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of the Halsted over the ring without its weak point in the canal above the cord.

The Ferguson operation effects the closure with little disturbance of normal anatomic relations. It is adequate in many small herniæ, and in most all herniæ in children. The curved incision is inconsequential.

The new Halsted-Bloodgood operation (sometimes referred to as the Johns Hopkins operation) curtails the vessels of the cord, which is depressed, and the stump is utilized as a barrier. The space under and behind the cord is filled by the drawn up and sutured cremaster muscle. The remainder of the procedure is essentially the same as the Andrews and Girard closures.

Any and all of these procedures seem to be adequate. Time may develop their weak points, as it has in those operations which have preceded.

If all hernias were of the ordinary kind as we usually meet them, perhaps there would have been no demand for a change, but all operators with any considerable experience well know the need of a secure method of closure in the aggravated cases, and in those with structural deficiencies.

Since Billroth, who first alluded to it, all have recognized the desirability of using the aponeurosis of the external oblique to bridge the defect instead of using the strongest structure to simply cover the cord. This was early recognized by Halsted, but his transplantation of the cord was so direct and straight that it is often a vulnerable point for recurrence, besides its requiring too much curtailment of the vessels of the cord. Hence, the original operation bearing his name has enjoyed no great popularity, and has been abandoned by its author, who now does another operation, known as the Halsted-Bloodgood operation, in which the cord is depressed to a point which is not vulnerable on acount of its being fortified by fat. The chief value of this method is its utilization of the aponeurosis of the external oblique in addition to the conjoined tendon in closing the ring, the closure being trebly secure by the overlapping of the aponeurosis upon itself. This method, or those similar, seems indispensable in large herniæ and those with deficient structures for closure, and in hernia accompanied by undescended testis; because in many of these the cord is so short as to interfere with its transplantation, because of it being already too short; and to shorten it further usually brings the testicle directly over the pubic bone, a position so unfavorable for it that it might better be removed than permitted to remain in a position subjected

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to frequent traumatism. A properly done Halsted-Bloodgood operation for hernia in conjunction with undescended testis is quite a satisfactory procedure, if the organ is really worth saving. If, in addition, the cremaster is entirely sacrificed, the position of the organ will usually be reasonably satisfactory.

The Bassini operation has been so deservedly popular in the past that it seems almost presumptuous to criticise it. The Andrews-Gerard or Halsted-Bloodgood operations are unquestionably superior in the class of cases enumerated.

Now, then, if they are superior in the cases unfavorable for the Bassini, can we not go a step further and say that either may be better for any or all cases, and for all reasons? The depressed cord operation is a more natural method. There is less disturbance of the anatomy. The muscles are not cut. The cord is little disturbed. It makes a closure unquestionably stronger in all points, save one, perhaps, and that is at the point of emergence of the cord. It will require time to demonstrate this.

Since using these operations in the conditions enumerated, I never resort to the original Halsted nor the Bassini, even with the Bloodgood modification. I shall expect to use these newer methods with increasing frequency. Always when specially indicated, as in children, in old men, in all large herniæ, and in small ones with deficient muscular structures, which will not permit of closure without tension; in cases of undescended testicle and in those who seem to be favorable subjects for surgical exploitation.

The writer still considers that the Bassini operation occupies first place, because it has stood the test of time. Until other procedures make as good a showing, it will be deservedly popular. The exceptional cases mentioned are better adapted to the newer and seemingly better methods. Indeed, in the writer's experience, they have been the only methods adequate to fully meet the conditions in some of his cases. It appears probable that these will increase in popularity and usefulness. However this may be, departure from routine methods is necessary in some cases of inguinal hernia.

Light from Bacteria.—The Lancet states that pure cultures of the photobacterium—which is the cause of the phosphorescence of the sea—can be obtained by placing a fresh haddock or herring in a 2 per cent. salt solution and keeping it at about 7 degrees above freezing. In a few days the fish and all the fluid give off a pale greenish light, made more brilliant by adding a little sugar. The cultures can even be photographed by their own light.

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ACUTE ENDOCARDITIS: ITS ETIOLOGY AND SYMPTOMATOLOGY.*

CHAS. W. M. POYNTER, M. D., LINCOLN, NEB.

I wish to call attention to the large number of diseases which are responsible for endocarditis, and insist upon a more careful observation of cases, that the endocardial involvement may be recognized early and proper measures for its treatment instituted. Our text-books have placed too little stress upon the possibility of endocarditis complicating diseases of known or supposed bacteriological origin, and consequently the early manifestations are not studied as they should be.

Classification.—It is sufficient for our purpose to divide endocarditis into benign or verrucose, and malignant or ulcerative. Thue sums up the question of classification, saying: "There is no cause to distinguish between the benign and malignant forms, both being simply phases of the same process."

Etiology.—As a predisposing factor of endocarditis, age undoubtedly has an influence. Holt reports 1,000 autopsies in children under 3 years of age, without a single occurrence. Blum cites a case in an infant of 2½ months, and involvement has been found even in intra-uterine life, but the occurrence is rare in infancy. Crandall thinks the appearance of endocarditis is more frequent between the ages of 8 and 11 than during any other period in life. The greater frequency at this period is probably due to the tendency to contract rheumatism and the exanthemata. Old age seems almost exempt. Slight unrecognized attacks which leave the valves scarred are responsible often for later involvement. An exciting disease, together with the valves as a point of least resistance, are the essentials for an attack of acute endocarditis. In 1886 Weichselbaum made a review of endocarditis, giving a number of bacteria as having been found in the valves and stated as his opinion that the condition was due in all cases to some bacterium. This view has been assailed and experiments performed to establish an endocardial inflammation of chemic or mechanical origin, but so far the results have not seemed to be conclusive. On the other hand, Rosenbach and others have repeatedly produced bacterial endocarditis, but find that the bacteria have no selective action on the valves unless they have been injured. Glynn quotes Orth as saying that infective endocarditis is never found save on old valve

* Read before the Nebraska State Medical Association, Beatrice, Neb., May 2 to 4, 1905.

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lesions. Kantbach found previous valve disease in 64 per cent. of a series studied by him.

I think at the present we may say, that while primary cases are not positively disproven, they are rare. In order to be on our guard we must keep in mind the diseases in which endocardial inflammation may be a complication. The different varieties of streptococci and staphylococci are the most important organisms relative to the production of endocarditis; whether the condition be a simple abrasion of the skin, abscess, puerperal fever or otitis media, there is danger. Brouardle thinks that sudden death, without apparent cause, could frequently be accounted for if the endocardium were examined. Gonococci were first found in the endocardium in 1893 by Leyden, but now reports are frequent of endocarditis of gonorrheal origin. As early as 1824 Bouilland recognized rheumatism as a causative factor, and now it is a part of the routine care of a rheumatic patient to make frequent examinations of the heart. I am unable to quote statistics as to the frequency of endocarditis complicating tonsillitis; but it is my opinion if we would study our cases more carefully heart involvement would be discovered more frequently than reports seem to indicate.

Authorities are not agreed as to its frequency in pneumonia, but agree that it is an important complication. Preble thinks that 1 per cent. of all cases and 5 per cent. of all fatal cases develop endocarditis. Chorea is an important etiological factor, and Osler asserts that endocardial involvement occurs more frequently in this than in any other disease. That the tubercular bacilli infest the valves has been demonstrated, as well as those cases that appear from mixed infection. Cases have been reported complicating typhus, typhoid and paratyphoid fevers, measles, mumps, chickenpox, smallpox, whooping-cough, and diphtheria. Diseases associated with progressive debility, as diabetes, Bright's disease and cancer, develop simple endocarditis. The condition is not rare in scarlet fever, but is generally associated with post-scarlatinal nephritis or in rheumatic patients. Our recent la grippe epidemic has undoubtedly caused many cases, however but few reports have been made.

Symptomatology.—Mayo has remarked that the foundation of modern medicine lies in the scientific study of the dead. This applies especially to acute endocarditis, for no accurate statistics can be found without post-mortem reports. The symptoms and physical signs are so often lacking, indefinite or masked by the intercurrent disease as to make diagnosis uncertain, or cause the

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case to escape our attention entirely. The symptoms vary from a slight precordial distress to a picture of profound sepsis and heart embarrassment. The patient's condition may give a hint of the trouble by increased restlessness and prostration, not accounted for by the disease existing. A sudden chill or an alternating chill and sweating may usher in the attack. The skin may become jaundiced or purpuric eruptions may appear, or petechial rashes resembling smallpox or cerebrospinal fever. Cases of superficial abscesses due to small infected emboli have been reported. Leube lays special stress on the hypersensitiveness of the skin of the legs. The temperature is very uncertain. It may be subnormal, according to Koplik, slightly raised, persistently high or irregular. It is only valuable when not bearing a proper relation to the intercurrent disease. Respiration is generally accelerated early in the attack, and dyspnea and cyanosis may be present and point to endocarditis when not features of the disease in progress. Fredrick Taylor calls attention to enlargement of the spleen as a diagnostic feature. Blood cultures will often show the identity of the infecting germ and prove a pyemia, but not valve involvement. In severe cases the tongue is coated and dry, the abdomen distended and diarrhea may occur. A few cases of hemorrhagic nephritis have been reported. All the symptoms are of indifferent value except when associated with the heart signs. Again we meet a difficulty, for extensive vegetations and endocardial inflammation may be present without causing a murmur, and we have long recognized what are termed hemic murmurs without valve involvement. Early there is likely to be some precordial distress, and a slight irregularity of pulse. The pulse will soon increase in rapidity out of proportion to the temperature. The first sound of the heart will be muffled, indistinct or prolonged. Later the heart may enlarge, the apex beat change, and the action be quick and irregular. A murmur may develop, generally systolic in time and oftenest heard at the apex. Boorse calls attention to the reduplication of the second sound heard at the apex but not at the base as indicating a beginning of endocardial inflammation, and thinks it an especially valuable sign in children. Embolic showerings generally occur late in the disease and assist materially in the diagnosis.

Conclusion.—Endocarditis is a pyemia in which the endocardium is involved because of low resistance. All patients should be examined for old heart lesions, for they are a fruitful source of later attacks. While we can not at present prevent endocarditis, we can by early diagnosis and the employment of the proper hygienic and supportive measures materially improve the prognosis.

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FOUR YEARS OF EXPERIENCE WITH SCOPOLAMINE-MORPHINE AS A GENERAL ANESTHETIC.*

BRUNO J. F. GETZLAFF, M. D., SUTTON, NEB.

My attention was first called to this valuable procedure by an article published by Korff in the Muenchener Medizinische Wochenschrift, July 16, 1901.

With the action of morphine every doctor ought to be familiar. This is not so with scopolamine, an "alkaloid of scopola carniolica" or "Japanese belladonna," so far a comparatively little known drug, but now official in the U. S. P., eighth edition. Horatio C. Wood, Jr., in a communication to the Therapeutic Gazette, April 18, 1901, entitled "Physiologic Relations of Scopola Carniolica to Atropa Belladonna," pronounces their comparative action so closely alike as to be practically indistinguishable. Both, he says, elevate the blood-presure, paralyze the pneumogastric, primarily stimulate, and in fatal doses kill by asphyxia. But he thinks the dominant alkaloids of the two plants probably not identical, and finds scopola distinctly more depressant and toxic than belladonna.

From an experience with eighty cases on whom serious operations were performed, Korff, in his paper mentioned above, draws the following conclusions: "Morphine and scopolamine are physiologic antagonists in every range of their action. Morphine paralyzes sensation, scopolamine motion. Morphine retards, scopolamine stimulates, respiration and the heart."

He proclaims the combination an anesthetic free from danger and inconvenience, and with many advantages over other methods. Vomiting is very rare. Patients may be led to the operating table quiet and drowsy, and, being put to bed after an operation, will sleep quietly from four to twelve hours. Awakening they remain free from post-operative pain of any kind, and almost invariably will ask when the operation is to begin. They will take liquid nourishment at once, and again fall into a quiet sleep for the rest of the night.

In my own experience I have not often found exceptions to this rule and I can fully concur in the above statements of Korff.

In a later contribution Korff gives his experience in fifty more important operations under his modified technic with the same brilliant results.

In 1904, Volkmann, in the Deutsche Medizinische Wochenschrift,

* Read before the Clay County, Nebraska, Medical Society, October 13, 1905.

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has nothing but words of praise for this method of narcosis, and qualifies it as a "great success."

Still later, in 1904, in number 32 of the Berliner Klinische Wochenschrift, Korff again in a paper on "Further Experiences with the Scopolamine-Morphine Narcosis," gives the results observed in two hundred cases of his method as equally good. He never has seen any disturbed function of kidneys, liver or digestive tract, and in proper dosage declares this method free from danger to heart and lungs. Schneiderlin, who deserves the credit of having first suggested and systematically applied this method of anesthesia in 1900 (but later improved upon by Korff to such an extent that the latter might justly call it his own), relates his experience in a contribution to the Muenchener Medizinische Wochenschrift, May, 1903, as follows: "Patient is in a drowsy, tranquil state, and thus is obviated the psychic shock which is frequently such an important factor in the bye-effects of chloroform or ether narcosis, and most of the time the anesthetizer is superfluous."

In my own experience I have yet to see a case of headache, vomiting, disturbed digestion, retention of urine, and especially intestinal paresis, so much dreaded after (especially prolonged) abdominal operations, although ocasionally, in very cholemic patients and after insufficient pre-operative preparations, a peculiar muddy discloration of the skin, and a not very agreeable, so-called "bilious smell" emanating from the patient, but soon passing off, have been observed by me. The pulse, although always of good quality, has varied between 50 and 150 beats per minute; respiration has always been good.

The morphine seems to be eliminated first, because of the sometimes enormous dilatation of the pupils observed for a day or two after the patient has regained consciousness.

In my first trials with this method in September, four years ago, I have followed Korff's suggestions, and employed the following technic: Four hours before the operation one centigram of morphine and four decimilligrams of scopolamine hydrobromid (Merck) dissolved in normal salt solution were injected hypodermatically anywhere convenient. Two hours later another dose, and one and one-half hours later a third dose of the same amount, and in the same way, were given, the operation to begin half an hour to an hour after the last injection. Somewhat later, according to Korff's modified technic, I have injected three doses of one centigram of morphine and four decimilligrams of scopolamine each, two and one-half hours, one and one-half hours, and one-half hour before

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the operation. Still later, I have given three doses of one centigram of morphine and twelve decimilligrams of scopolamine within four hours. Now, I generally employ three doses of fifteen milligrams of morphine, and six decimilligrams of scopolamine at intervals of one to two hours, according to what experience, good judgment and common sense dictate to me to be best and safest for the patient and individual in hand.

The pupils must needs be our guide as to proper relation of dosage between the two drugs.

The preliminary test-injections, practiced by some, I have never administered, and so far found them to be unnecessary.

A small amount of chloroform or ether must sometimes be given to complete the narcosis.

I have kept an alcholic stock-solution of scopolamine hydrobromid (Merck) for nearly four years, and without any apparent deterioration in its action.

My results with hyoscine hydrobromid, chemically identical with scopolamine, are decidedly in favor of the latter drug therapeutically.

The ages of my patients were between 10 to 80 years (Korff does not employ this method in patients under 16 years of age), and the number of cases operated upon by me over ninety, with no deaths, except one, twelve weeks after the operation, and this attributable to other causes. This series includes about forty abdominal sections for various purposes.

My youngest patient, 10 years old, for months suffering from cerebral symptoms due to infection by the influenza bacillus, and on whom a radical mastoid operation was done for the relief of the same, bore the drugs exceedingly and unexpectedly well, awakening and remaining free from pain and mental symptoms of any kind until this day.

My oldest patient was a country gentleman of 80 years of age, for years suffering the most horrible agonies from trifacial neuralgia, on whom injections of a one and one-half per cent. solution of osmic acid into the nerve trunks contained in the supraorbital, infraorbital and dental foramina or canals (and for safety's sake resection of the respective nerve branches) were practised. I shall always think with exceeding pleasure of how this old man by continual spitting and hacking succeeded in keeping his mouth and throat free from the accumulation of blood due to the quite profuse hemorrhage produced by the intrabuccal surgical manipulations. This old gentleman also has remained free from any pain and in-

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convenience until this day, six months after the operation, and has developed from an emaciated, mental and physical wreck into quite a fine specimen of manhood for his age.

I believe that I am entitled to the claim of priority in the use of this method, and almost to the exclusion of any other narcosis, and for that length of time, in this country.

General Medicine.

Tent Cottages for Consumptives.—E. F. Ingals and J. M. Dodson, Chicago (Journal A. M. A., January 20), describe a form of tent cottage devised by Dr. W. T. Brown, superintendent of the Valmora Ranch, Watrous, New Mexico, and point out its advantages over the usual tent lodgings advised for consumptives in that climate. The device provides for double roof with arrangements for ventilating the interspace, and partially removable sides, affording ample access for outer air during times of sleep. They are provided with sanitary conveniences, and at times of dressing and undressing the rooms can easily be heated with a stove, and then by the use of levers in a moment the patient is practically out of doors and yet protected from the severest storms. It affords all the convenience of a tent without its disadvantages. Dr. Brown offers to furnish plans and specifications of such a cottage to any physician desiring to construct one.

Rest in Pulmonary Tuberculosis.—J. G. Hilleary, Dubois, Pa. (Journal A. M. A., January 20), pleads for the routine employment of rest in the open air in the treatment of all active or partially arrested cases of pulmonary tuberculosis. Rest, he says, favors the production in the system of agglutinins, bacteriolytic and antitoxic substances, and this accounts for the lowering of temperature and the lessened activity of the bacilli at the site of the local lesion. In his opinion, exercise has no place in the treatment of the disease, and is responsible for the failure to cure nine times out of ten, in otherwise curable cases. The effect of exercise, according to Bernheim, is an active congestion in the neighborhood of the tuberculous focus and often of new tiers of adhesions, mobilization of the bacteria, thoracic pain and sometimes hemorrhage or pneumothorax. It is the great bar to successful treatment in the working classes and should be permitted only under strict necessity. Details of the method followed by the author in the open-air rest treatment are given; it does not, of course, preclude the use of other agencies, such as food, general hygiene and hydrotherapy, in the conduct of the case.

Indian Doctors of Old.—Undoubtedly the American Indian in his primeval state was a fine specimen of physical manhood. Dr. E. J. Kempf, who has made a careful investigation into frontier history, has found that before the Indians were contaminated by the white race they were never afflicted with smallpox, measles, tuberculosis, gout, scurvy, insanity, nervous diseases, nor any other of the ills and blood affections which have in late years made such terrible inroads upon the numbers and vitality of the red men of this country. The only bodily afflictions which Dr. Kempf reports to the Medical Record that he found among the aborigines were fevers and diseases produced by cold, such as pleurisy, pneumonia, rheumatism, dysentery and wounds from accidents or battle. Naturally, the remedies of the Indians were simple and few in number. When sick an Indian refused all kinds of

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stimulating aliments, but drank profusely of cold water. In addition to this, in proper cases the Indian resorted to sweating, purging, vomiting and bleeding, and finally, when all remedies seemed to be ineffectual, the medicine man was called in to try his amulets and incantations on the patient. These methods of cure are still resorted to among blanket Indians who are removed from the influences of civilization. But before we smile or condemn these practices we should consider our own history. It was only a few generations ago that our ideas of medicine were almost as crude as those of the Indians. The more intelligent of the white people then, of course, did not resort to magic and incantations, but the concoctions which they manufactured to cure diseases almost pass belief. Oliver Wendell Holmes, in his "Medical History of Massachusetts," has made a permanent record of some of the practices then prevailing among the colonists. Governor Winthrop was a devout believer in the efficacy of sow-bugs, while Rev. Cotton Mather used upon his sick friends such absurd and foul pellets and medicaments as no Indian ever dreamed of.—Kansas City Star.

Nebraska State Medical Association.

To COUNTY SOCIETIES: Now is the time to think of medical societies, both county and state. Get your men together, increase your membership and have a good, live working society. The life of a state organization depends entirely upon the enthusiasm of your county associations. Get up good scientific programs, elect officers that are willing to work and send your best man as a delegate to the State Association.

Have your county represented also on the scientific program for the May meeting—May 1 to 3, 1906—at Lincoln. Yours, A. D. WILKINSON.

THE presidents and secretaries of the sections for the scientific program may not know that you wish to write a paper. Don't wait for them to write you, but notify them that you would like to present a paper at the May meeting. We want the author of every paper to send in a short abstract of his subject that it may appear on the program. A. D. WILKINSON.

Committee on Public Policy and Medical Legislation—Auxiliary Members.

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W. D. Shields.....Holdrege
G. H. Brash.....Beatrice
A. F. Jonas, President N. S. M. A.....Omaha
A. D. Wilkinson, Secretary N. S. M. A.....Lincoln

All matters concerning the committee and its work should be addressed to the chairman of the committee, Dr. A. S. v. Mansfelde, "Quality Hill," Ashland, Neb.

Auxiliary members of the committee: Resolution adopted by the House of Delegates at its session at Omaha, May 3 to 5, 1904:

"Moved, seconded and carried by the board that the appropriation of $200 for medical legislation be continued, and we recommend to the House of Delegates that the secretaries of the county societies in the state be made auxiliary members of the committee on public policy and legislation and that this appropriation be used for the general purposes of this committee."

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Place of Meeting, Lincoln. May 1 to 3, 1906.

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WESTERN MEDICAL REVIEW

A JOURNAL OF MEDICINE AND SURGERY.

Published Monthly by WESTERN MEDICAL REVIEW COMPANY,
1238 O Street, Lincoln, Nebraska. Per Annum, $2.00.

The WESTERN MEDICAL REVIEW is the official organ of the Nebraska State Medical Association and is sent by order of the Association to each of its eight hundred members.

H. WINNETT ORR, M. D., EDITOR.

Entered as second-class mail matter at Lincoln, Nebraska, post-office, under the Act of March 3, 1879.

VOL. XI. LINCOLN, NEB., FEBRUARY 15, 1906. NO. 2.

MR. WILMARTH AND THE ASHLAND JOURNAL.

The fight which is being waged against patent medicines has passed the stage of being simply a public question. Collier's Weekly and The Ladies' Home Journal have been chiefly instrumental in arousing the public conscience. At present the solution of the difficulty lies with every individual in every community. The public conscience having been aroused, individual responsibility must now be felt before suitable laws can be passed and the patent medicine business properly controlled. It is greatly encouraging that editors of local lay publications like Mr. Phil. R. Wilmarth, of the Ashand, Neb., Journal, are taking an outspoken position on this question. Comparatively few of the smaller lay newspapers and periodicals have felt that they could afford to take a position in opposition to the patent medicine business. Such a position involves a financial sacrifice which few editors of such newspapers think they can afford to make. When editors of such papers make any effort whatever to satisfy their consciences by unfavorable comments on self-medication, they are careful to do so in a manner which will not prove offensive to their advertising patrons. Mr. Wilmarth assumes no such uncertain position. He says, among other things:

"The Journal today needs advertising as bad as any paper in the state, but it does not need it bad enough to accept one line that it does not believe is thoroughly reliable, and we have no space for any medicine we do not know to be absolutely reliable.

"Ashland has a number of physicians and druggists whose abilities and characters stand unquestioned. We have drug stores where

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absolute honesty and accuracy are beyond doubt. Our physicians and druggists are men whom one can trust with the welfare and health of his loved ones with perfect confidence.

"Go to your home doctor or your home druggist. Home druggists put up remedies that you can keep in the house, and on whose purity you can depend. Our druggists are worthy of confidence, and we know would not offer to a friend or a neighbor a medicine that is not pure. Don't turn the home druggists down for a patent medicine fraud."

The physicians of Nebraska will do well to encourage in every way possible this courageous position of the Ashland Journal. The Arapahoe Pioneer has taken advantage of the declaration of the Ashland Journal to declare its full agreement to the opposition to the patent medicine business. Physicians should help the good work along by boosting papers that are not afraid to stand up for the welfare and the health of their people.

THE SAFETY RAZOR.

Manual dexterity is to a large extent a prerequisite for the success of the physician or surgeon. Accuracy of observation and delicacy of touch are as essential to elicit those symptoms of disease which preclude an accurate diagnosis as are good sense and the ability to reason to arrive at a conclusion of a proper mode of treatment once a proper diagnosis has been made. The growing popularity of the safety razor prompts the present writer to the thought that physicians nowadays are becoming too prone to depend upon what might be called safety razor methods of diagnosis to the neglect of those methods by which only physicians can arrive at certain kinds of information to be obtained from the person of the patient. Just on the face of it it seems unreasonable to entrust a surgeon with a scalpel in the abdominal or cervical regions if he makes a habit of shaving himself with a safety razor because he is afraid of the old-fashioned kind. A man without the dexterity to operate an ordinary razor upon himself certainly lays himself open to the suspicion that it is risky to let him get under your skin with a knife. Just so a physician who depends for all his diagnoses upon

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the work of an assistant in a distant laboratory may be suspected of being unequal to the emergency of making a diagnosis in those obscure cases in which the laboratory fails to furnish him with the data to make a diagnosis. In this day of "workless" methods of doing things it will be wise for us to realize that there are certain ends which can only be obtained by conscientious as well as conscious efforts. There are other attainments than the object of learning, to which it may truly be said there is no royal road. Skill and accuracy of diagnosis is certainly one of these, and there is no method of attaining this very desirable end except that method which involves long and painstaking mental and manual education. It is important for us to avoid a safety-razor habit of doing things. Any education has a disciplinarian as well as a utilitarian side. Physicians must train themselves for usefulness primarily, but the acquisition of the method is at the same time an essential part.

Notes and News.

Dr. Byars has located in Valley, Neb.

Dr. F. J. Peter, of Omaha, expects to locate at Cuba, Kan.

Dr. Ben W. Kinsey, of Hot Springs, may locate at Sioux City.

The Dodge County Medical Society met in Fremont January 10.

The Lyons County Medical Association of Kansas met January 3.

Dr. Milan D. Baker has been appointed city physician of Madison, Neb.

The wife of Dr. Pollard, of Omaha, Neb., died at her home on January 8.

Dr. A. L. Besore, of Macedonia, Neb., has decided to locate at Carson, Neb.

Dr. Heimrod has opened an office for the practice of medicine in Butte, Neb.

The Merrick County Medical Association met on January 11 in Central City.

Dr. R. W. Chamberlin, of Sioux City, Ia., has decided to locate in Neligh, Neb.

The Colfax County Medical Society met in Schuyler, Wednesday, January 17.

The Story County Medical Association held its annual meeting at Ames, Ia., January 9.

Dr. E. M. Whitten has been appointed physician for the Burlington at Nebraska City.

Dr. Edw. Ballinger, of Chicago, Ill., has gone to Oakland, Neb., to practice medicine.

Dr. L. C. Bleick and Miss Anna Ruden, of Bloomfield, were married on December 20, 1905.

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DR. J. F. LOGAN, of Clarksville, Ia., died January 6 after two weeks' illness with la grippe.

DR. YOHE, of Leavenworth, Kan., has been appointed physician at the federal penitentiary.

DR. C. A. OAKS has been appointed county physician of Seward county for the ensuing year.

THE Sioux Valley Medical Association held a meeting at Sioux City, Ia., on January 18 and 19.

THE Johnson County Medical Society held its annual meeting in Tecumseh, Neb., January 22.

THE Dawson County Medical Society held its fourth annual meeting in Gothenburg January 5.

DR. FRED KUEGEL, a nephew of Dr. H. S. Summers, of West Point, Neb., will locate at Madison, Neb.

DR. A. D. WILKINSON, Lincoln, Neb., has moved his office to the Security Building, 142 South Thirteenth street.

DR. O. H. MAGARET was appointed January 3 to be a member of the county board of health at Papillion, Neb.

DR. ELLA P. SUMNER, of Bloomington, Neb., has been elected vice-president of the Republican Valley Medical Society.

THE adjourned meeting of the Saunders County Medical Society was held at Wahoo, Neb., Thursday, January 18.

THE annual meeting of the Omaha-Douglas County Medical Society was held January 9 at the Millard Hotel, Omaha.

DR. J. R. SAMPLE, of Hastings, and his brother, Dr. M. V. B. Sample, of David City, have opened up offices in Kearney.

DR. FRANK GRABEL, formerly of Creston, Neb., has located at Wood River, Neb., and taken up the practice of medicine.

DR. A. C. STOKES, of Omaha, has been appointed by the county commissioners as an assistant surgeon on the staff at the county hospital.

DR. F. MARION BARKER, of North Loup, Neb., who has been in the hospitals of London for the past year and a half, arrived home January 8.

DR. ROSENBURG, Dr. Bancroft and Dr. Packard, of Lexington, Neb., attended the meeting of the Dawson County Medical Society at Gothenburg January 5.

DR. W. O. GAGE, who has been the physician for the construction crews of the Northwestern extension, has returned to McCook, Neb., on account of failing health.

DR. H. A. WHEELER, of Sioux City, has announced himself as a candidate for the secretaryship of the state board of health. He is dean of the Sioux City College of Medicine.

DR. W. S. CHERRY, of Omaha, visited Grafton on January 10 with the intention of locating there for the practice of his profession, but has not fully decided as to his future course.

THE hospital department of the Dellone Hotel was opened January 16 for the receiving of patients. The third floor will be used exclusively for this work. This institution will be known as the Omaha General Hospital.

THE state board of medical examiners of Wyoming has made a new decision in regard to the practice of army surgeons outside of army circles. The board holds that army surgeons, under the state medical laws, will not be permitted to practice outside of army circles in competition with physicians in private life unless they pass a regular examination before the state medical board and are licensed the same as other physicians.

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Original Articles.

TENTH ANNUAL MEETING OF THE ELKHORN VALLEY MEDICAL SOCIETY.

NORFOLK, NEB., January 16, 1906.

The Elkhorn Valley Medical Society met in tenth regular annual session in the Elks' lodge rooms, Norfolk, Neb., at 2 p. m., the president, W. F. Conwell, in the chair.

The minutes of the last meeting were read and approved as read.

The semi-annual report of the secretary was read and adopted, and ordered made a part of the record.

The report of the treasurer showed a balance in the treasury of $38.36.

The following were elected to membership: George F. Pugh, Platte Center; Roy Crook, Oakdale; P. H. Metz, Humphrey; M. V. Burrus, Albion; M. D. Baker, Madison; C. W. Hargens, Hot Springs, S. D.; H. B. Lemere, W. F. Milroy, F. S. Owen, R. D. Mason, Omaha; R. H. Rhoden, Fremont; W. H. Heine, Hooper; J. D. Reid, Pilger.

The annual election of officers resulted as follows: President, F. L. Frink, Newman Grove; first vice-president, D. W. Beattie, Neligh; second vice-president, E. A. Weir, Chadron; secretary, F. A. Long, Madison; treasurer, W. H. H. Hagey, Norfolk.

The following papers were read and ably discussed, the program occupying the afternoon and the evening sessions to 10 o'clock p. m.:

Retrospect of Thirty-Three Years of Active Practice, W. F. Conwell, Neligh; Proctitis and Sigmoiditis, R. D. Mason, Omaha; Acute Arthritis Deformans—Acute Articular Rheumatism—Differential Diagnosis, C. W. Hargens, Hot Springs, S. D.; Some Observations and Conclusions, Wise and Otherwise, E. A. Weir, Chadron; Strabismus, H. B. Lemere, Omaha; Glanders, D. W. Beattie, Neligh; Injuries of the Head, R. H. Rhoden, Fremont; Diagnostic and Prognostic Data in Nervous and Mental Diseases, J. M. Aikin, Omaha.

Besides $10.85 voted to the secretary for expenses of getting out the program, and the sum of $6 for the purchase of a new Medical Directory, the society voted the sum of $1.50 to the janitor of the Elks' rooms, and the secretary and treasurer were instructed to draw on the funds of the society for the expense of the banquet, which amount was $16.

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The secretary was instructed to make arrangements with the editor of the WESTERN MEDICAL REVIEW for the publication of the proceedings of the meeting, if it could be done, on the same terms as a year ago.

After adjournment a banquet was served at the Oxnard Hotel to the physicians present.

Forty physicians were present at the meeting, as follows: Frink, Conwell, Hagey, Long, R. D. Mason, Milroy, Wigglesworth, Reid, Munson, Pugh, Tanner, Rhoden, W. O. Henry, Minton, Beattie, Gilligan, Bear, Pilger, Mackay, Montgomery, Burrus, Gadbois, P. H. Salter, H. S. Summers, Hargens, B. B. Davis, Lemere, Heine, Metz, Wilson, Weir, Owen, J. M. Aikin, Lord, Peters, Bryant, Pheasant, Nicholson.

Adjourned. F. A. LONG, Secretary.

RETROSPECT OF THIRTY-THREE YEARS OF ACTIVE PRACTICE.*

W. F. CONWELL, M. D., NELIGH, NEB.

When I look back to the time I began the study of medicine, I am struck with wonder at the great changes that have been wrought in the practice of medicine and surgery. When I took my first course of lectures in 1867-8 there was nothing known or said about antiseptics or germs. Mark the wonderful change that has been wrought, especially in surgery. Think now of a surgeon speaking of laudable pus. It makes me think of the words of Shok: "I'm in this world where to do harm is laudable." Now we think it harmful to have pus after operations. In those days it was considered necessary to the repair of wounds. Lister's name should ever be remembered with gratitude for the part he played in evolving the antiseptic theory. Many lives are saved each year by means of aseptic treatment in our surgical cases.

No teaching of the different forms of bacteria up to 1870. Now we find it part of the curriculum of all the colleges.

When I began the practice of medicine, I had not heard of appendicitis. My preceptor often spoke of having a case of inflammation of the bowels, but no cases of appendicitis; that is, he did not diagnose those as such. I give him due credit for his work, because he was not behind others in that respect. I believe the first operation for appendicitis was performed in 1884, so you see it is comparatively new. Closer work and more accuracy in diagnosing our

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cases has saved many lives that otherwise would have been lost. I regard appendicitis as a surgical disease from outset to finish. The less medicine given the better chance the patient has of recovery. Do not give opiates to relieve pain and mask the symptoms so that you are unable to tell how sick the patient is. Cut off feeding and operate as soon as the patient will allow you to, is my plan. Delays are certainly dangerous in this class of cases.

Operations for gall-stones were not thought of thirty-three years ago; no, not even diagnosed as such. There was jaundice spoken of in a vague way and it was supposed the liver failed to act. It was all guess-work about the real trouble. Now the operation is frequent and the results are fine. Dr. J. B. Murphy showed me seven cases in one afternoon. I remarked that there seemed to be a good many of that class of cases. "Yes," he said, "the woods are full of them." Here we have another illustration of the vast number of cases which can be saved by a timely operation. But procrastination is the rule in this class of cases. The long drawn out delay is the great danger. Whenever stone or stones become lodged in the ducts, blocking the escape of bile, and the patient becomes markedly jaundiced, there is great danger of hemorrhage, especially also very great danger from ulceration into the stomach—as in a case that I saw Professor Murphy operate on in the Mercy Hospital of Chicago (by the way the patient was a doctor), with fatal results. Professor Murphy remarked that the doctor always seems to get the worst of it.

It is only since the seventies that diphtheria has been proven to be caused by a germ. Thanks to Loeffler for the scientific work in isolating the particular germ that caused so many deaths. Now, armed with antitoxin, many are saved that would be lost without it. I believe any physician who does not employ antitoxin in the treatment of his cases of diphtheria is neglectful of his duty. I might enumerate a great many more diseases that are produced by germs, but time will not permit of it.

There is one disease I wish to say a few words about—tuberculosis. Our ideas of this "great white plague," as it is sometimes denominated, have greatly changed in the past one-third of a century. We know now that it is the tubercle bacilli that cause the destruction of so many valuable lives every year. We have learned to be more careful in the disposition of the sputa—the use of paper sacks and burning them is a safe manner of disposing of it. The prophylactic steps to be taken whenever there is a case of tuberculosis should be drilled into patient and friends. I will relate one

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case only simply to show what can be done here in Nebraska for a case of tuberculosis.

Mrs. T., aged 43 years, had her first intimation of lung trouble twenty-seven years ago by a hemorrhage, that being about six months after marrying. I wish to state that this lady has raised a family of seven children since and has had repeated hemorrhages. Two years ago she was confined to her bed six weeks and expectorated great quantities of pus. Had chills and elevation of temperature every day, but finally rallied, got out in the sunshine of the bay window, and later took rides around town. Now there is no expectoration or cough. I believe the lung healed. The patient has just gone into the house to sleep in the last week or two.

I believe outdoor life, with a regulated diet, a very important part of the treatment in this class of cases. What will the next third of a century do for this class of cases? Does any one here today think that we have a medicine that will arrest the work of this death-dealing germ? How about the serum or tuberculin—are we ready to say to our patients that we can cure them? That is the all-absorbing question that we hear from all classes of cases. Patients care but little how these ends are accomplished—whether you use little pills or big pills, whether you rub the disease out or talk it away; it seems all classes of healers have their advantages. I believe the better plan is to study your case first. Make up your mind what will best suit the particular case, and if you come to the conclusion that your patients need but little, if any, medicine, give them suggestive treatment. Possibly a little hypnotism or hypnotic suggestion will cure a case of hysteria that has been the rounds of all the physicians of your town. Do not be in a hurry; take time to learn all that can be learned in any case. I was struck with the amount of time that Professor Austin Flint gave to his cases before he would prescribe for them. I had the pleasure of listening to the last lecture—clinical lecture—that that grand man delivered in the Bellevue Hospital, 1886. One hour and only one case disposed of. I have seen doctors before and since that diagnosed and prescribed in ten minutes. Good doctors; but did they do justice to the case? This is a fast world and we all strive to keep pace with it. Let us endeavor to do well what little we do and not go at our work blindly. What is worth doing at all is worth doing well. A reputable physician told me he splinted an arm, taking for granted it was broken, when it later proved to have a portion of hard weed in the flesh. I removed a grain of corn from the nasal passage of a boy who had been treated for catarrh. Take plenty of time. Make haste slowly is a good rule.

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Now, as retiring president of this worthy society, I thank you very much for the kindness you have shown me. I hope you will all live to see the progress in our noble work that I have intimated in this brief paper.

PROCTITIS AND SIGMOIDITIS.*

R. D. MASON, M. D., OMAHA, NEB.

Inflammations of the different mucous membranes are very common and manifest their presence in different ways, according to the part affected, and whether acute or chronic. The causes that produce the disease in one place will do so in another; a sudden chilling of the body may cause a so-called cold in the head; or sleeping on cold, damp ground may cause a proctitis which, if left untreated, may become chronic, and we have the so-called chronic diarrhea so often found among elderly people, especially old soldiers.

There may also be a specific inflammation of the rectal membrane due to indirect causes such as diphtheria, gonorrhea, etc., accidently carried from some other part of the patient's body to the anal or rectal membrane by means of instruments, fingers or syringe nozzles, or by the discharge from the vagina flowing over the parts.

Among the causes, in addition to those already mentioned, probably the most common one is traumatism either from within or from without. From within serious injury may be the result of substances swallowed, as pins, fish-bones and other foreign substances. All such things will pass through the stomach, small and large intestine without difficulty, but lodge in the rectal pouch and set up an inflammatory process that may result in a general proctitis or possibly an abscess. I have frequently taken such things from abscess cavities in this region. The disease may also be caused by the retention of hard, dry, impacted fecal matter which is very irritating. Those causes which act from without are contusions and punctured wounds. It is not very uncommon to have the bowel wall punctured by the rough use of instruments or the finger in making an examination.

In a recent issue of the Journal of the American Medical Association, Dr. Howard A. Kelley cites several cases where the wall of the bowel was punctured by the examining finger. This is more likely to occur in old people. If such wounds are uncared for a proctitis or periproctitis would result that might prove fatal. Kelley says such wounds should be repaired by opening the abdomen and

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stitching from the peritoneal side. Owing to their being so low in the pelvis it seems to me that this would be extremely difficult to do.

In the chronic form of the disease, in addition to the rectal inflammation, we almost always have an extension to the sigmoid and the whole descending colon may be affected.

In acute proctitis the pain is very great and is accompanied with tenesmus and considerable constitutional disturbance. There is a constant feeling that there is something in the bowel, even after the patient has just left the commode, but this is due to the swollen mucous membrane.

When the disease becomes chronic there is not much pain except on deep pressure over the sigmoid. The desire to go to the stool, while not constant as in the acute form, is still very troublesome and there may be from ten to twenty bowel movements daily. This takes place more often in the morning rather than any other time of the day, and it is not uncommon to have four or five bowel movements in rapid succession containing bloody mucus or clear mucus resembling jelly and followed by a solid stool. The patient may then pass the rest of the day with but little discomfort.

In its early stages it is difficult to diagnose the disease from cancer of the sigmoid, but, as the latter is essentially chronic while cancer runs its course in two or three years, and as the sigmoiditis does not as a rule come under the doctor's care until it has run for some time, the diagnosis is not hard to make. A microscopical examination of the discharge should be made to differentiate between the common inflammations and amebic dysentery. As the ameba are not active in cold solutions the examination should be made while the matter passed is still warm.

In the chronic form of the disease the membrane of the sigmoid, when examined through the sigmoidoscope, has a very dark appearance and looks like fresh, raw beef and in some instances blood may been seen oozing from the bowel wall.

Treatment in the acute form consists in rest for the inflamed part, a carefully selected diet and the use of mild antiseptic astringent solutions. The one great difficulty in treating proctitis is the lack of drainage. The products of inflammation are retained behind a tight sphincter muscle and the greater the inflammation the more firmly does the muscle contract. This is true to so great an extent that often it is only with the greatest difficuly that a bowel movement may be had or an irrigator introduced. In such cases the patient had better be put under the influence of an anesthetic and the

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sphincter divulsed. In punctured wounds where the bowel wall is torn and pus has formed it may be necessary to cut the muscle posteriorly so that proper drainage may be obtained. There is no one thing that so much assists nature in bringing about a cure in a diseased organ that is acutely inflamed as rest. For this reason in acute cases the patient should be kept in bed and fed only highly concentrated food, such as will leave practically no residue to pass away; in fact, if almost no food is given for a few days it will greatly assist in the cure. Another reason why the recumbent position should be insisted upon is that the rectum and sigmoid are drained by the middle and superior hemorrhoidal veins, which have no valves and go direct to the liver through the portal system; and when the patient is standing the weight of this entire column of blood has to be lifted by the heart, while if the patient is lying down gravity will greatly assist in keeping the parts from excessive congestion.

In the acute form it is not very common to have an extension to the sigmoid, and for this reason any injection used need not be forced above the rectal pouch. A double current rectal irrigator should be used, or if this is not at hand any soft rubber catheter may be introduced with the syringe nozzle for the return flow; by shutting off the outflow tube the rectal pouch may be filled to its fullest capacity. The remedy that has given me the greatest satisfaction is fluid hydrastis in 25 per cent. solution. Weak solutions of zinc, copper, etc., are useful, as are also the new preparations of silver, especially argyrol in from 5 to 10 per cent. solutions. Silver nitrate should not be used in acute proctitis except in very weak solution. In order to control the constant desire to empty the bowel some local opiate is needed, and nothing is better than two or three ounces of starch water to which has been added from ten to thirty drops of tr. of opium. This may be repeated as found necessary.

Specific proctitis is not often found and is generally due to gonorrhea. The line of treatment should be the same as that followed in treating the disease in other localities, the bowel should be irrigated with large, hot permanganate solutions of from 3 to 5 per cent. in the early stages, and later one or two ounces of argyrol solution should be injected into the bowel and retained. In the later stages of the disease more astringent solutions should be used, and a good formula is the following: zinc sulph. gr. 12; bismuth carb. dr. 2; dr. liq. hydrastis, colorless, oz. ½; aqua dest. q. s. f. t. oz. 2. One-half of this may be added to an equal quantity of water and injected and allowed to remain.

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In treating the chronic form of the disease we meet with a more difficult problem, as the sigmoid and the descending colon are often affected, and irrigations must be forced above the rectal pouch. Most writers on this subject advise the use of the long rectal tube, but I have found from experience that it is exceedingly difficult to introduce this instrument into the descending colon. I have used the utmost care in trying to do this and have congratulated myself that the tube was in almost its full length, only to find it was coiled in the rectum. My plan for irrigating the bowel is as follows: Have the patient lie on his back with hips well elevated; have the water very hot and the irrigator not more than two feet above the table; use a small nozzle not more than three inches long; let the water run very slowly, and if the patient says that he cannot hold it, stop the flow until the desire for an evacuation passes away and then start it again. It is only the first few ounces that causes a desire for evacuation to be felt, and as soon as the water begins to flow into the sigmoid this will not be felt as a rule. If the sphincter is very lax, push the syringe nozzle through a small roller bandage and then into the bowel, and sufficient pressure may be made against the sphincter to prevent the loss of water around the nozzle. By using a double flow catheter and compressing the outflow tube at intervals the colon may be flushed with sterile water or salt solution, after which such medicated solutions as may be preferred may be run in and allowed to remain. This thorough flushing of the colon should not be done more than two or three times a week at first, and later not more than once a week. In case there is much blood in the discharge a solution of silver nitrate seems to do more good than any other remedy. It should not be stronger than one-half of 1 per cent. at first and very gradually brought up to 2 to 3 per cent. It should not be used more often than once a week, and if it causes much pain it may be followed by the normal salt solution, but this never should precede the silver. Argyrol in 5 to 10 per cent. solution gives good results.

In a case of amebic dysentery the solutions used should be cold. as the ameba cannot live in a low temperature. Tuttle claims to have cured several cases with ice water. A line of treatment which consists mainly in giving large doses of Epsom salts has proven very successful, mainly by keeping the colon clear of irritating material. This constant cathartic action of the drug is very depressing to the general health and really accomplishes no more than irrigating with salt solution.

Great care should be taken with diet and only the most easily

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digested, nutritious food given. Tea, coffee, and all alcoholic drinks should be prohibited. The treatment in the chronic form of the disease is necessarily slow and tedious and requires considerable time, but if carried out faithfully will usually result in a cure.

Should it be found impossible to bring about a cure by the methods outlined here, a colostomy may be done, and by diverting the fecal current give the bowel complete rest; or an opening may be made in the cecum and by means of a catheter the treatment may be carried on both from above and below as recommended by Gibson.

ACUTE ARTICULAR RHEUMATISM AND ACUTE ARTHRITIS DEFORMANS: THEIR DIFFERENTIAL DIAGNOSIS.*

C. W. HARGENS, M. D., HOT SPRINGS. S. D.

Fourteen years' residence at Hot Springs, S. D., daily observing the many classes of cases that come there seeking relief, has revealed to me, many times, the serious and pitiable condition of patients as the result of either an improper diagnosis or no diagnosis at all, and has indelibly stamped upon my mind the very great importance, and the absolute necessity, of making a correct diagnosis. There are some elements about the practice of medicine that lead to carelessness and a failure to take that deep interest in a patient's case that we should. Usually patients who consult us swear by us, and believe in us; they consult us because they know or believe that we are a better man than Dr. Otherfellow; knowing this we are careless because he won't consult Dr. Otherfellow. Then, again, the natural tendency of most diseases or abnormal states is to repair, and the chances are that the patient will recover on phenalgin or aletris cordial independent of either the nature of his difficulty or the therapeutic action of the unknown mixtures employed. Then, again, our competition is weak and we are safe in our carelessness. Again, we are just in from a long ride, a difficult surgical operation; in an awful hurry, or up all night, all tired out; and it's "Let me see your tongue," "How are your bowels?" and, "Well, I'll give you some medicine." Or we really are weak in our diagnostic equipment and unable to arrive at a correct diagnosis.

Once we are in the harness the most important element in our scientific equipment is our ability to make a correct diagnosis. Of

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course we realize that it is not always possible to make a correct diagnosis; but we must state that, considering the character of the two diseases we are about to discuss, there is really no good reason for making an improper diagnosis; and as both cases have so much at stake it is imperative that an early, correct diagnosis should be made.

In fourteen years I have seen something over thirty cases of arthritis deformans and several thousand cases of rheumatism, and the character of the demands made upon me have compelled me to take particular cognizance of these two affections. During this time I can recall but five or six instances wherein a patient consulted me, with the statement that his attending physician had pronounced his case as one of arthritis deformans; the balance all consulted me for rheumatism, acute, subacute and so-called "chronic." A patient that recently consulted me, a woman about 63 years of age, out of a well-to-do family living in Oak Park, Chicago, named to me nine Chicago physicians, eight of whom diagnosed her case as chronic rheumatism, and one who correctly diagnosed the case as arthritis deformans.

Now the word "rheumatism" is a handy term. "Rheumatism" is an omnibus into which many practitioneers dump all ill-defined pains, conditions and states troublesome, difficult to explain, and not well understood,—a diagnosis so satisfying to the patient, and agreeing with the patient's preconceived opinion. All a sort of refuse heap to which the salicylates are applied without beneficial results, and, wherefore, the treatment of acute articular rheumatism in general falls into disrepute; and that classical difficulty, acute arthritis deformans, seldom recognized as such, is almost always diagnosed as acute articular rheumatism, and treated as such, not only without influence on the progress of the case but with detriment to the patient.

Experience has taught us that when called to see a case wherein the diagnosis is not absolutely plain, or where we are dealing with symptoms initially indicative of one of several affections, it is always best to make a provisional or probable diagnosis, leaving your diagnostic back door open for a retreat to safe grounds if retreat becomes necessary. In diagnosis our back door is usually open. Whenever we are called to see a case that, on first inspection, appears to be one of acute articular rheumatism, we always leave our back door open, and often find use for it. Provisional or probable diagnosis, with a subsequent correct statement as to the true nature of the case, means a reputation for carefulness and

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scientific professional attainment. A positive, immediate, erroneous diagnosis may, later, call for more moral courage than we possess in acknowledging our mistake, and subsequently lead to our undoing by having the case correctly diagnosed by our competitor. In the one case we arrange for our professional escape, in the other we arrange for our professional damnation.

In the affections here under discussion the only thing that has saved many professional scalps is the fact that the public is not aware that acute articular rheumatism is not a disease that becomes chronic, continuing on for months and years and leading to all the pathological states characteristic of chronic arthritis deformans.

I do not wish to be understood as stating that arthritis deformans always begins as an acute polyarthritis, simulating acute articular rheumatism. This mode of onset occurs in about 25 per cent. of the cases only, and it is here where our differential acumen is taxed. It is comparatively easy to diagnose the cases that begin by involving one or a few joints without much general disturbance, but which run an insidious, progressive course. In the 25 per cent. of cases just alluded to, the initial symptoms simulate those of acute articular rheumatism, and often it requires several days to arrive at a definite conclusion as to the true nature of the case. Quoting myself: "Acute articular rheumatism may be speedily recovered from; where not speedily recovered from we have complications." "Scepticism as to a successful and adequate treatment of acute articular rheumatism and the prevention of its complications, is based on errors of diagnosis, improper notions as to its etiology, or improper treatment; in rheumatism, the old saying, 'six weeks and red flannel,' does not now hold true." Whenever you have a case of "rheumatism" that trots along under proper treatment for weeks, you have either secondary microbic infection involving the cardiac structures or joints, or you have not a case of rheumatism. In my opinion, so-called cases of chronic articular rheumatism are never a true rheumatic arthritis. Such cases are gout, arthritis deformans, articular disturbances due to pathological states of the nervous system or to some form of bacterial invasion. I would like to see the word "rheumatism" eliminated from all forms of joint affections due to bacterial invasion. Mon-articular affections are never rheumatic.

The differential diagnosis between acute articular rheumatism and arthritis deformans is largely based on a correct appreciation of the symptoms, conditions present, and course of the former when under

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proper treatment. Acute articular rheumatism is an acute febrile affection, non-contagious, characterized by a nomadic multiple arthritis, profuse sweating and prone to cardial complications. Notice now the multiple arthritis ambulating from joint to joint, with improvement in the joints previously involved. This is not true of arthritis deformans. Once you have joints involved in this affection they are persistently involved, so that whenever we have a case where one, two, three or more joints are involved, and persistently so, we have not a case of articular rheumatism. In acute articular rheumatism you will have a high temperature, 103° and over, and a temperature in proportion to the amount of arthritis present. In arthritis deformans you have a temperature not high,—99.5° to 102°, usually about 100° to 101°,—and not in proportion to the arthritis present. In the former the joints are hot, red, swollen, and excruciatingly painful on least movement—even the weight of the bed-clothes cannot be borne; in the latter the joints are swollen but not so hot and red. In rheumatism the swelling is in the joint, in arthritis deformans it is more in the periarticular structures. In arthritis deformans the patient can bear the weight of the bed-clothes and the joints can be moved without that excruciating pain found in acute articular rheumatism. Polyarthritis is present in both, but in acute arthritis deformans it is not shifting, and joints involved are persistently involved; also you find the cervical and maxillary joints involved, which is not the case in rheumatism. In arthritis deformans the arthritis, if involving the finger-joints, takes on a fusiform shape; where the finger and wrist joints are involved rapid early atrophy of the interossei muscles takes place.

In acute articular rheumatism you often have a concurrent or preceding attack of tonsillitis; this is rarely true of arthritis deformans.

In acute articular rheumatism cardial complications are prone to develop; this is not true of arthritis deformans. Also we have an important therapeutic test: Under proper conditions sodium salicylate is practically a specific in uncomplicated acute articular rheumatism, while it has no influence on the course of acute arthritis deformans.

In my hospital work I can usually get a case of acute rheumatism up in from ten to twenty days. It requires weeks to accomplish the same results in arthritis deformans. We are to remember the one is speedily recovered from, the other tends to become chronic. Now also we must be on the outlook for cases of arthritis deformans

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that make an apparent recovery from acute attacks and finally develop the chronic state.

Before closing this discussion I want to be verbose, even at the expense of becoming tiresome; also to digress just a little more from my topic. Let us get rid of the word "rheumatism" as applying to any chronic state. In doing this we will clear up much of the medical chaos of chronic, muscular and arthritic diseases. In doing this we at once look for a correct diagnosis. We thus strike directly at quackishness and a large class of nostrum venders and public gullibility. Teach your patients that chronic rheumatism does not exist. A case of arthritis that has existed for many weeks, months or years, is not a case of chronic rheumatism, but a case either of gout, bacterial invasion, arthritis deformans or conditions due to diseases of the nervous system. Usually the case is one of arthritis deformans in one of its several varieties so characteristic that errors of diagnosis should not be made. You have the hyperextension of some of the joints, the peculiar fusiform shape of some; the anchylosis or limitation of motion; the smooth, waxy color of the skin, particularly over the knee-joints—the patient speaks of the "cracking" in the joints; the tenderness to pressure; the sensation as of sandy or gravelly particles adherent in the subcutaneous structures; the enlarged lymphatic glands near the affected joints; the history of acute characteristic attacks, or the insidious persistent involvement of the joints; the peculiar pallor of the case, with hemoglobin ranging from 60 to 80; the rapid pulse, ranging from 90 to 120, and the almost constant temperature, ranging from 99° to 99.5°; the increased reflexes; the early atrophy of the muscles;—this is the picture of chronic arthritis deformans, never chronic rheumatism. Never treat these cases by the procedures ordinarily employed in rheumatism. Much injury is done by such treatment if pursued. These are cases for residence in a dry, sunshiny climate, medium elevation; some are benefited by warm alkaline baths of short duration, some by local hot packs or local hot-air baths; place them on a general mixed diet—forced feeding is in order; the diet should be particularly rich in nitrogenous elements; give daily massage, passive motion and manipulation of affected joints; have them take regular exercise. Where a case cannot walk on account of condition of knee-joints, surgical intervention may be employed, hamstringing or breaking up adhesions and placing in plaster cast. For medicaments, cod-liver oil, arsenic and iodide of iron are best. All you can hope to

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do in these chronic cases is to alleviate, palliate and arrest development. I have never seen a chronic case recover. The only real hope in these cases is an early diagnosis.

COMITANT CONVERGENT STRABISMUS.*

H. B. LEMERE, M. D., OMAHA, NEB.

Comitant convergent strabismus, or internal squint, is a condition in which the visual line of one eye converges more than the other when the vision is fixed on an object directly in front, the motility of the eyes not being impaired by the absence or paralysis of the external rectus. The condition is readily recognizable even in a slight degree and is commonly known as squint or cast. In this respect it differs from external squint, in which the casual observer sees something wrong with the eyes without recognizing that one eye turns out.

The deviation in internal squint may be so slight as to be hardly recognized, and is referred to by the patient and his friends as a slight cast; or it may be so great that on fixation of vision directly forward the cornea of the squinting eye is rolled quite on to the inner canthus. The amount of deviation is measured in various ways and is generally recorded in degrees of the angle formed by the optic axis with the median line; for instance, a deviation of 45° would be a very marked squint.

The squint is generally constant in one eye, the other eye always being used for fixation—monocular. In another form the eyes fix indifferently, sometimes one and sometimes the other alternating squint.

In children the deviation is often transitory, lasting a few seconds or minutes and then disappearing. This variety is known as periodic squint. It is not so common in adults, and generally comes on with fatigue or excessive near use of the eyes.

Though the excess of action comes from both interni, there is never such a condition as both eyes turning in simultaneously; the visual axis of one of the eyes always corresponds nearly to the anatomic axis, the other eye deviating.

There is a very close relation between far-sight, or hyperopia, and internal squint. In general the eyes in internal squint are far-sighted; that is, the accommodation has to be exerted for even distant objects in order to obtain a clear image of the object on the

*Read before the Elkhorn Valley Medical Society, Norfolk, Neb., January 16, 1906.

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retina. When attempt is made to see a near object this accommodation exercised for the distant object has added to it the normal accommodative effort for near objects, and the sum in a hypermetope of 350 D. is equal to twice the accommodative effort called for in a normal eye. Now the brain centers of convergence and accommodation are very closely allied. For binocular vision it is necessary for the eyes to both converge and accommodate. In Donders' theory of internal squint these facts are considered. He argues that an excessive effort of accommodation is called for; that to aid this effort an excessive amount of convergence takes place and produces the squint. Donders' theory is the generally accepted theory of internal squint and the most plausible one we have. Donders' theory explains the case in which the eye is far-sighted but normal, and short-sighted eyes sometimes squint, and only a small proportion of all far-sighted eyes turn in.

It is my intention this evening to present to you an elaboration of Donders' theory, which addition, so far as I know, is original with me and which will allow of the theory embracing all cases of internal squint. Before enunciating this theory, however, I wish to state a few additional facts which bear on the etiology of the condition. The vision of the squinting eye is generally defective, this defect sometimes being caused by opacity of the cornea, but more often being psychic, the brain refusing to recognize the image carried to it from the retina, the media of the eye being clear and the fundus normal in appearance.

Further, I have found it to be the case that the two eyes working together show more latent far-sight than either eye tested by itself. For example, each eye separately may see with, say, a + 4 D. lens, and any stronger lens will impair the vision; but the two eyes, when taken together, will see well with a lens from ¼ to ½ a diopter stronger; that is, taken together, the eyes with a + 4¼ D. or + 4½ D. lens the vision will be at its maximum acuteness; whereas this degree of acuteness could only be attained with a + 4 when each eye was tested separately. Even the emmetropic eye, if taken separately, will show itself subject to the same rule.

In all cases, then, in which the vision of one eye becomes obliterated or obscured, whether from a psychic, a refractive or an obstructive cause, the additional work given to the remaining eye causes a certain tonic spasm of accommodation and with it of convergence. This spasm of convergence causes the initiation of the squint.

This extension of Donders' theory assumes the hypothesis that

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one eye shall have lost its acute central vision and that binocular vision ceases before the turning in of the eye. This I believe to be the case, otherwise we would have double vision in alternating squint and in periodic squint, as the squinting eye often can be made to see acutely but central vision is psychically obliterated. I should like to take every factor of convergent squint and apply it to this theory, but such an elaboration would be out of place here and I am afraid would weary you.

Leaving the theoretical argument, the treatment of convergent strabismus consists of efforts, where possible, to obtain the straightening by promoting binocular vision, and where this is ineffectual to bring the eyes straight by operative measures. The longer the duration of the squint the more difficult to obtain binocular fusion; so that this attempt should be made immediately on the discovery of the deviation and will generally be between the age of three and six. The first step will be the correcting of any refractive error, thus rendering vision as clear and free from accommodative strain as possible. In children of three to six, subjective tests which rely for exactness on the answers of the child are ineffectual and atropine cyclopegia and retinoscopy must be used. By these means the surgeon can accurately determine any error of refraction without calling for any information from the child. The idea of a child of two and one-half years wearing a pair of spectacles possibly seems to you absurd; but the spectacle is an orthopedic appliance and the surgeon should no more hesitate to apply it than he would to use a brace, splint or jurymast because the patient was not of greater age. The tender age of the child is a point in its favor as the appliance will be more likely to be effectual. Then, again, if the use of the spectacle be delayed the function of binocular vision may be forever lost and the obliteration of central vision in the squinting eye become permanent. When the glasses are fitted the child may be trained to binocular vision. This is done by means of some form of the steroscope and will mainly devolve on the parents or some teacher carrying out instructions of the surgeon.

If in spite of these measures the eye still squints, no time should be lost by waiting, but the eye straightened by operative measures. These consist of tenotomy of the internal rectus and advancement of the external rectus. As the turning in is the result primarily of the excessive action of the internal rectus, if the squint is small in amount the correction is attempted by a tenotomy of the tendon of this muscle. The external rectus, however, from its malposition is often elongated and weakened. Therefore, if the eye after a mod-

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erate tenotomy is not straight the external rectus should be shortened and its attachment advanced to a point nearer the cornea and thus increasing the power of the muscles.

The attachments of the tendons of the ocular muscles are strengthened by strands of connective tissue which act as guys. If these are cut in a tenotomy in order to obtain a greater result the effect may be quite disastrous. The caruncle of the eye may recede, giving the eye an ugly, unnatural appearance, or the muscle may be so weakened that the motion of the eye inward is very much restricted, or the action of the opposing externus may cause an overcorrection and the eye turn out. One or all of the above evil results may come from a too free division of the attachment of the internal rectus. Panas advised the stretching of the muscle by traction on the muscle with a strabismus hook before division of its tendon in order to obtain a greater result in tenotomies. My observation of this procedure was that it added little to the effect, and I think such force is very unadvisable in dealing with the delicate muscle structures.

I practice what is known as the Weeks' advancement in this operation. The connection of the capsule of Tenor with the muscle and conjunctiva is not disturbed except so much as is necessary in separating the attachment of the muscle from the globe. The advancement of muscle capsule of Tenor and conjunctiva is made all together, thus securing a very strong reattachment. This operation is so satisfactory that I have never been tempted to perform any of the operations of putting a tuck in the muscle to shorten it, especially as my observation of the tendon-tucking operation leads me to deem its effect not permanent.

The combination of tenotomy of internus and the advancement of the externus is necessary in moderately pronounced squint, and when this combined operation on the squinting eye still leaves some squint to correct a tenotomy of the internus of the opposite eye may be done. This will be sufficient, as a rule, to correct the greatest deviation.

In operating on small children it is necessary to give a general anesthetic, but in adults there is practically no pain under cocaine anesthesia and the effect can be gauged more accurately.

Fuchs advises that the child be not operated on till he is ten years old, for fear there may afterward result an overcorrection. This advice, if acted upon, will do great injustice to the child as his chances for binocular vision will by that time be entirely gone. For not only is overcorrection very easily remedied by an ad-

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vancement of the too much weakened internus, but there is less liability of the eyes turning out, the more chance there is for binocular vision, and this chance is lost by waiting for time to pass. The chance for overcorrection is very slight now that the radical tenotomy in which the muscle and all its guys were dissected from the globe has yielded to the moderate non-traumatic tenotomy aided where necessary by advancement.

The operations when done with ordinary aseptic precautions and followed by intelligent treatment are free from danger to the eye. The reaction after the operation is usually slight, the stitches being removed and the bandages dispensed with in from five to ten days. The eyes should be kept under the influence of atropine till both are behind the lenses, which fully correct any refractive error. When only one eye is operated on I remove the bandage as soon as the refraction will safely permit, sometimes after the first day, that the eye may come into use as soon as possible.

In this short paper, which has necessarily left much unsaid on so prominent a subject, I wish to bring particularly before you the extension of Donders' theory, which makes its application much broader, and also the change in operative procedure, which removes the danger of overcorrection and makes safe and not only advisable but imperative correction of this deformity in early life.

GLANDERS.*

D. W. BEATTIE, M. D., NELIGH, NEB.

By glanders we understand an acute infectious disease developing primarily in the nasal passages of the horse, ass or mule, producing a mucous flow and ulceration of the nasal septum. It has been found to be caused by the bacillus mallei. In man the disease does not often present itself, but it is sufficiently frequent for us to try to be on our guard, and try to detect glanders in horses in time to warn the community and save those who handle them, or at least know ourselves just how great the danger is in these cases. Authors may tell us that its occurrence in man is infrequent. You will have to see but few cases in man, however, until you will come to the conclusion that it is a disease terrible in its course and deadly in its results. It becomes our duty, therefore, to try to impress every person with a horse which looks at all suspicious as to the terrible chances he is himself taking, and the dangers to which he

*Read before the Elkhorn Valley Medical Society, Norfolk, Neb., January 16, 1906.

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is subjecting the lives and property of the community. I will not try to describe the symptoms of glanders in the horse, neither will I try to draw the clinical picture, but will confine myself to the consideration of the disease in man. It is almost invariably conveyed to man in one of two ways—through the skin or the respiratory organs. In some instances the poison has entered the unbroken skin by way of the hair follicles. If the infection is by inhalation the first lesions are likely to be located in the lungs; this may also be the seat of the lesions when the infection has occurred through the skin. I may remark here that, aside from the pulmonary symptoms which are present when the lungs are the seat of the infection, the general symptoms are very similar in a large majority of the cases.

The patient may notice a sore spot at the point of infection, or this may escape his notice altogether; he has a feeling of general malaise, but once the poison begins its deadly work, I know of no disease which progresses more rapidly to a fatal termination. The muscles all over the body become spastic, a peculiar apathy creeps over the patient, and while he seems to realize that he is very sick he is peculiarly unconcerned in regard to the matter for the first two or three days. The temperature begins to creep up and with it the pulse-rate. The patient begins to have an alarmed appearance, and a few small macules appear, which I believe are likely to be at some point near the seat of the initial lesion. In many cases these can be easily mistaken for the lesions of variola, but with the other manifestations such a mistake would be inexcusable. About the time this eruption appears all of the previous symptoms become increased. Delirium makes its appearance, if it has not done so before, and as the lesions spread, which they do very rapidly, the temperature rises from 100° to 102° up to 103° and 104°, and the delirium becomes more marked. The eruption is peculiar in that some of the lesions are just making their appearance, while others are papular and still others are pustular. Very few, if any, of the lesions rupture, although they may appear on the point of doing so. They develop in the order of their appearance and spread rapidly over the body, usually in the course of twenty-four hours, and by the time they have covered the body the ones which first appeared have the appearance of fully developed pustules. In appearance the pustule is round or oval, deep seated, and its base is hard. They are not confluent nor do they show any disposition to become so, but you may see them on the different parts of the body in different stages of development. I

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never saw any eruption which would develop with such amazing rapidity. Lesions which appear as macules, in from three to four hours will appear as fully developed pustules, and by the time the lesions have made their appearance over the entire body, usually covering a period of not more than three days from the appearance of the first macule, the case will undergo certain clinical changes. An active delirium rapidly develops, and in all cases which I have seen or could get reliable information about the delirium has been of a maniacal character, the patient being controlled with difficulty. He tries to get out of bed, force being necessary to control him. This condition lasts but a short time as death closes the scene in a few hours. There is a possibility of the case passing into a chronic condition, but this I have never seen; and when it does occur, from the conversation I have had with professional brethren, I would judge that it was only a prolongation of their suffering with the same fatal result.

CASE I.—Wm. H., aged about 30; livery and hotel-keeper, was the owner of a very fine Hambletonian stallion. The fact had been referred to hi mseveral times that the horse had a suspicious discharge from the nose and he had better investigate the matter as they believed it to be glanders. Any reference to the matter would always offend the owner. As he was a man of very decided opinions the matter rested there for some time. People generally became accustomed to this and in the meantime the horse was treated and his nose kept clean. Suddenly it was reported that the owner was sick, with the following symptoms: a small sore developed on his right hand, the edges of which were hard, a general feeling of malaise with elevation of temperature and rapid pulse-rate, cough and the symptoms of atypical pneumonia. In the course of three or four days, during which time all of these symptoms were greatly augmented, there apeared over his abdomen an eruption (which I did not see), and about the same time active and violent delirium. He was a powerful man and with great difficulty controlled; this occured in the afternoon and continued until morning, when he suddenly ceased to struggle and in a few minutes more death closed the scene.

CASE II.—I. B. Called to see patient March 8, 1905, and obtained the following history: Three days before he began to feel badly and noticed that his legs felt stiff and sore, and he supposed that he had an attack of rheumatism. Arrived in Neligh on the above date and after riding 100 miles was so stiff all over that he had to be picked up and carried from the couch and placed in a carriage.

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I was called at once, found him listless, complaining of some headache, head retracted and a general spasticity of moderate degree of all the muscles. Temperature 102°, pulse 100.

March 9. Found little change in condition of patient except the temperature and pulse were a little higher and he now complained of a sore place on the back of his necek. On examining I found a small suppurating sore, the edges of which were quite hard. The calomel given him the day before had operated freely.

March 10. Some small macules and papules appeared on his face, a few of which show a disposition to become pustular; his eyes look a little red and his head seems to be drawn further back, articulation is thick and it is with difficulty that he moves in bed.

10 p. m. The eruption on his face has become pustular and a fresh crop can be seen appearing. On examination of the body they are found in all stages of development. At this juncture I called Dr. Conwell to see the case with me, and as soon as he knew who the fellow was he had a clew as he knew he had been working where there were some glandered horses. We, of course, told the people the patient would die, and probably soon.

March 11, 12 m. Received a call by 'phone stating that the patient was delirious and entirely unmanageable,—had been so for a couple of hours,—and they wanted me to come at once; told them I would come as soon as I had finished my dinner. In not more than ten minutes the 'phone rang again and they told me he was dead.

Thus you can form some idea of the virulence of this poison; and although the cases may be rare, they are so terrible that they should not be disregarded, especially in regard to prophylaxis. If a horse is suspected and you do not want to investigate yourself, send some of the virus to some one who has the time and equipment for making the research. If you wish to make the investigation yourself simply inoculate a rabbit, cat or guinea-pig and if the case is one of glanders it should kill the animal in about three days.

Ancient Remedies.—A sleep in the temple of Aesculapius cured blindness. Scrapings procured from the tombstones of saints placed in wine or water cured not only the ailing limbs but also washed off the stains from the conscience. The heart from a living lark worn as an amulet at the left thigh was a sure remedy against belly ache. Epilepsy was cured by tying the forehead of an ass to the skin of the patient. Iris, peonias and nightshade, gathered when the moon was on the wane, and worn as an amulet, would protect the wearer against all diseases.—Pacific Medical Journal.

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INJURIES OF THE HEAD.*

R. H. RHODEN, M. D., FREMONT, NEB.

In our examination of head injuries an essential feature is the estimation of the intracranial lesion. The local cranial wound may be accompanied by a meningeal or a cerebral contusion, or by a laceration of brain tissue at some distance from the external injury. Upon these complications in a great measure depends the prognosis. If fracture exists, its management, whether simple, compound, or complicated, must be determined by the surgical judgment which, with all care against inflammation, relieves, by the trephine or elevator, pressure of bone, arrests bleeding, and places the tissues in the best position for uncomplicated repair.

To determine the plan of treatment when the injury to bone is slight, and the attending symptoms not urgent, is a delicate question. The rule that every depressed fracture should be elevated; that in a stellate fissure the integrity of the inner table is doubtful, and hence exploration judicious; that in a simple fissure with intracranial symptoms means for inspection are indicated, and when a marked hematoma masks the bony outlines, exploration will be considered appropriate and conservative, seems to be a correct one, surgically speaking, in our care of these cases. The following case will illustrate an unexpected complication in which the obtuse symptoms pointed to the selection of a nonoperative line of treatment.

May L., aged 8 years, was injured in a street railway accident, and an examination at the Presbyterian Hospital, two days after the injury, revealed normal pupils, temperature and pulse with absence of motor and sensory disturbances. The tone of the muscles and intellect were unimpaired. A large hematoma upon the left side of the head, which entirely prevented palpation of the bone, increased moderately during the first four days, while the other, negative symptoms remained unchanged. With the head prepared an incision revealed a fissuration and slight depression of the bone under the extracranial clot, and the trephine revealed a large epidural clot, amounting to three ounces. Its removal was followed by a recovery which might possibly have ensued without operative interference, yet it is, I think, plain that the danger either of early or late complications was reduced by the treatment which in the face of such negative symptoms was reluctantly practiced.

* Read before the Elkhorn Valley Medical Society, Norfolk, Neb., January 16, 1906.

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Of the intracranial lesions which influence the prognosis in head injuries, hemorrhage deserves first consideration, and, if free, it is generally epidural primarily, although a pial or cortical bleeding may coexist or occur independently of the extradural extravasation. The dangers which attend the intracranial complication depend upon the amount and location of the extravasated blood. Rapid exsanguination, compression, and shock from bleeding will have, as early symptoms, a subnormal temperature, temporary and probably recurrent unconsciousness, a compressible pulse; while the deviations of respiration and pupils are not as a rule diagnostic. Although an escape of blood or cerebrospinal fluid from the ear, or of blood from the nose or mouth, or a subconjunctival ecchymosis, after eliminating extracranial causes, directs our attention not only to the bleeding but to a possible fracture, yet the absence of such evidence does not exclude serious internal lesions or fracture. In fact it has been originally pointed out by Phelps that severe localized pain, disproportionate in intensity to the apparent severity of the injury, may be the guide to the diagnosis of a basic fracture.

In cranial fractures it is not a common experience to meet with lay press cases where coma is suddenly relieved by a trephination; yet, if such a case actually occurs the remediable complication will be found to be hemorrhage. A favorable case for such an illustration occurred in 1902, when a man who had received a severe blow over the left side of the head walked some distance, described his accident, and soon passed into an unconscious condition with subnormal temperature and pulse and hemiplegia. Trephination of a depressed fracture revealed a rupture of the anterior branch of the middle meningeal artery, with profuse epidural and cortical extravasations, the removal of which, with arrest of the bleeding, led to a return of consciousness and motion, with restoration to normal of pulse and respiration, as soon as the effects of the anesthetic were lost.

In attempting isolation of contusion, as one of the prominent intracranial non-operative complications, it is plain that it rarely exists uncomplicated by laceration or hemorrhage. Confusion, vertigo, restlessness, with temporary unconsciousness and a feeling of exhaustion, point to brain contusion without a necessarily grave prognosis, yet the care of such a case should cover a period of several days, with quiet sedatives and laxatives as safeguards against a late secondary development of inflammation.

The indications of laceration of brain tissue are, sharp tempera-

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ture elevation, which continues progressive until the fatal termination; irritability, sensitiveness, muscular rigidity, especially with basic laceration; asymmetrical radial pulse, generally with greater fulness and strength upon the side of injury. Bilateral variations of axillary temperature are sometimes associated with this unfavorable intracranial lesion.

The treatment in lacerated injuries is necessarily unsatisfactory, yet, as in contusion, the relief from external irritations, sustaining the circulation, and securing rest are to be attempted. To this end the ice cap, mercurials, and morphia or bromides, with a dark, quiet room, are probably the most valuable agents.

In operative cases no interference should be attempted until reaction has been secured, unless from excessive hemorrhages such a course is not warranted. The immediate and depressing effects should pass away, and the shock of a laceration should be combated by agents which sustain the heart and respiration before the opportunity for added shock of an operation is permitted.

The limitations, therefore, for interference surgically, while broad for vertex fractures and for evidences of epidural hemorrhage, are comparatively narrow for the intracranial complications, deep hemorrhage, contusion, and laceration of the brain or meninges. This rule cannot be made descriptively precise, for the reason that a given case may present fractures belonging to each of the leading lesions, while the clinical evidences must be analyzed and the most urgent ones met.

General Medicine.

SEVERE and repeated headaches may be due to the unsuspected presence of otitis media, with or without mastoiditis.—American Journal of Surgery.

Antiseptic Liquid Soap.—

℞ Saponis mollis,
Alcoholis,
Aquæ, of each, 120 cubic centimeters.

Misce et adde phenolis, 40 cubic centimeters.

Dr. I. S. Trostler, of Orleans, Neb., contributes the above to the Medical World as the ideal formula for liquid soap.—Pacific Medical Journal.

The Breadth of the Profession of Medicine.—In his chairman's address before the Section on Nervous and Mental Diseases of the American Medical Association (Journal A. M. A., January 20), J. H. McBride, Pasadena, Cal., refers to the general progress of the specialty during the year and insists on the importance of original research on the part of the practitioner. Helpful as experimental work has been it is through the study of

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disease at the bedside that progress in neurology has chiefly been made. The seeming lack of interest in therapeutics is noted, and he remarks that this field is wide, and that the future will undoubtedly disclose remedial measures, other than drugs, that will be of value. There may possibly be a wider legitimate field for systematic mental therapeutics than is at present recognized. The importance of breadth of view and of wide knowledge of medicine in general is emphasized. The neurologist must not only be progressive but must also be an opportunist, ready to take advantage of any and all means and methods that will help to cure disease. There is no profession, he states, that is less trammeled by precedent or tradition than the medical profession, and it is not to the discredit but to the glory of medicine that it changes. "The world of knowledge grows: sciences are forever being reconstituted, and medicine must meet the demands of change and growth." In spite of all the discoveries, he believes we are yet at the beginning of what medicine will be.

Changed Views on Suicide.—Bentham, writing in the earlier half of the nineteenth century, complained that juries were constantly guilty of perjury when they declared a suicide to have been *non compos* at the time of his decease. The recent verdict upon Whitaker Wright would have seemed to the great jurist to mark a return to ancient candor, however much the announcement that a man had a motive for suicide and died in his senses may startle people today. The verdict of the jury and the coroner's remarks at the inquest on the body of Whitaker Wright should, indeed, serve as a reminder that the law does not necessarily regard suicide as the result of insanity, and that even where it seems to admit insanity, it isolates it in a manner quite contrary to scientific ideas of causation. In cases, for instance, where suicide has closely followed the making of a will, the law has repeatedly refused to invalidate the testament because the testator took his own life shortly after writing it. The notion that a man is out of his senses when he commits suicide really dates from the day when the church insisted that suicides, as persons guilty of self-murder, should be buried with the utmost ignominy. Lay jurymen in those days, to save their fellow creatures' bodies from disgrace, preferred to suppose that a suicide was insane at the time of death, and therefore irresponsible. The plea of insanity in early times was frankly put forward as a legal fiction, actuated by kindness, and as such was probably freely accepted by individual priests. It is difficult to say exactly when what now seems to be a firmly rooted belief began to prevail that a suicide is out of his senses at the time he puts an end to himself. In the eighteenth century a connection between abnormal mental conditions and suicide appears gradually to have arisen, and in 1878 "self-destruction" and "phrenzy" occur in the same book title as though the one connoted the other.—The Lancet.

Society Proceedings.

THE Saunders County Medical Society convened in annual session in the council chamber of the city hall at Wahoo, Thursday evening, January 18, 1906, Dr. Bush in the chair.

The president delivered an address which was ordered published in the WESTERN MEDICAL REVIEW.

Dr. Torgny Anderson, of Ceresco, was elected to membership.

The following resolution was adopted:

Whereas, We note with great satisfaction the stand taken by the Ashland

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On the other hand, it was equally true that the ideals in mind at the University were distinctly favorable to the union, since thereby was gained at one stroke such clinical opportunities and teachers as could not be developed otherwise in many years. If the University on its part had unique advantages which it was peculiarly well able to develop along right lines, the Omaha college was equally fortunate in being located in a great and growing center of population, with hospital facilities constantly on the increase and with a faculty capable, enthusiastic, of university ideals, and anxious to make the clinical years more than equal in rank to the earlier part of the course. One of the first steps taken in Omaha was to organize the clinical work into sections, to insure the individual student personal training from his instructor by dividing classes into small groups for practical work in various branches. By this each student acquires an intimate acquaintance with the cases under consideration and is called upon constantly to observe for himself, to analyze and to form conclusions with regard to the questions at hand. Such training, acknowledged to be the most desirable and yet unattainable in most schools, is achieved here through the extent of the clinical opportunities and the size and strength of the faculty.

The University of Nebraska was the first western medical school to raise the standard of entrance to include a full four-year high-school course, and its advance was justified by the subsequent action of other important boards regulating medical standards which adopted the same two years later as the minimum standard for all recognized medical colleges in the United States. Finding the preliminary training of such great advantage to the student and desiring to train only the best students for the highest professional achievements, the University has already announced a further advance in entrance requirements. This has not been done in any spirit of exclusiveness, or through disregard of the students' interests but looks to his welfare by giving the most thorough foundation for his future work and insures him the highest success in his profession, knowing the world will benefit through the work of more highly trained men and that it will give greater satisfaction to the individual himself. After the completion of his course the student who desires is given the opportunity of a year of hospital work as an interne. Owing to small classes the number of such openings at present available is beyond the number of applicants, a condition which can hardly be found in any other school. The University is determined to offer unusual opportunities to those ambitious students who have heretofore been compelled to go east or abroad for similar training.

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LABORATORY OF PRACTICAL ANATOMY.

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THUYOL—(Oil Thuya C. P.)

This is a volatile oil obtained from the fresh tops or leaves of Thuya Occidentalis or Arbor Vitæ, of the natural order Coniferæ, commonly but incorrectly called White Cedar. It has a balsamic odor resembling that of turpentine and a pungently aromatic, somewhat bitter taste. Internally it has an action similar to that of Oil of Savine. It is quite irritant to point of application and somewhat emmenagogue, but only on account of its irritant action. It has some anthelmintic properties similar to other volatile oils and being excreted by the kidney produces some increase in diuresis. On the central nervous system its action is similar to that of Camphor, causing convulsions in warm blooded animals and paralysis in cold blooded ones. It exerts very little influence on the heart or circulation but reduces temperature to a slight extent. In toxic doses it produces gastro-enteritis with depression and tendency to abortion in pregnant animals.

Thuyol has no rational internal uses in therapeutics largely on account of its intensely irritant local action. Its clinical uses are as a local application to the skin or mucous membranes, always well diluted with some fat or oil. Thuyol Ointment (one part Thuyol to fifteen parts of white vaseline) is a serviceable form for application to cutaneous surfaces. Thuyol Compound (one part Thuyol to nineteen parts of Terrine) for application to mucous membranes as a spray or topical application and Thuyol Suppositories (each two minims Thuyol in a Glycero Gelatine base) a convenient means of applying the durg to the rectum. The local action of this drug consists in preventing the growth of or destroying abnormal tissue and promoting normal healthy granulations in sluggish wounds, ulcers or other solutions of continuity. It has been found an efficient remedy in varicose ulcers, fistula in ano, nasal polypi, hypertrophied turbinated bodies, thickened Schneiderian membrane, ozena and catarrh. As an ointment or suppository it has proved successful in the treatment of itching or bleeding piles. Some have derived benefit in prostatic hypertrophy by using Thuyol Suppositories or injecting it diluted with oil into the rectum. Many have found it useful in epithelioma and other superficial cancerous growths.

One author speaks highly of Thuyol Compound used with a vaseline atomizer in cultivation of the voice where there is thickening of the vocal cords with hoarseness. Others speak highly of its efficacy in removing warts, both venereal and benign. Here it is used pure with care not to involve healthy tissue. It should never be used hypodermically in any case as serious results are apt to follow.

In the Canadian Journal of Medicine and Surgery for January, 1905, Dr. Charles R. Dickson of Toronto, speaking of the treatment of lupus vulgaris by Finsen and X-rays writes as follows: "Immediately after the treatment the parts should be cleansed and a thin layer of emollient ointment used. After experimenting with a number of unsatisfactory preparations I adopted Thuyol Ointment as best fulfilling the requirements in such cases. It is biand, emollient

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and antiseptic and of sufficient consistence to remain close to the surface. It is effective in softening the crusts, facilitating their removal and preventing their reappearance. It antagonizes the action of bacilli and checks the extension of the disease. It protects the denuded surfaces and favors healthy granulation and prompt cicatrization. It is antiseptic but non-irritating and readily absorbable and of such consistence that it is easily spread thin at all seasons of the year, yet not softened too readily by the heat of the body and spread over the adjoining healthy skin. I use an ointment made with equal parts of Thuyol Ointment and a mixture of lanolin, white wax and vaseline. This is spread on fine gauze or what is better still, sterilized linen, which I find less irritating and more readily removed from the raw surfaces. This dressing should be applied to the crusts or ulcerated patches alone, carefully avoiding the sound tissue which should be kept dry and clean. This may be changed two or three times a day according to the amount of discharge. Later on when the discharge is lessened once a day will do."

A number of prominent physicians of Omaha have reported cases which illustrate some of the uses of this excellent therapeutic agent:

No. I. The patient was an old woman 92 years of age. She had a condition resembling senile gangrene of both feet. After losing several toes from one foot the member was amputated. By the persistent application of Thuyol Ointment to the diseased portions of the other foot the progress was arrested and the foot finally healed. It was spread about one-fourth of an inch thick on muslin and applied constantly to the diseased tissue. This was the only treatment that had any effect in promoting healthy granulations. The same physician reported a case of an infected wound of the chin in a patient with syphilitic history. There was much swelling of the face and involvement of the cervical glands. The application of Terra-Glycerite promptly reduced the swelling and relieved the distress and the subsequent application of Thuyol Ointment to the wound effected a speedy cure.

No. II. This was a case of a woman who had a very large breast removed for carcinoma. The operation left a large, granulating surface which was extremely hard to heal. The most efficient dressing was an ointment made with 1 part Thuyol to 10 parts of vaseline. The Thuyol Ointment was not strong enough to give best results in this case. This 10 per cent ointment proved most efficient in promoting healthy granulations and finally caused entire healing. The same physician reports excellent results from the local application of Thuyol to warts and similar excrescences. If small, he applied pure Thuyol and covered with a collodion dressing. Large growths were carefully treated by injecting a small amount into the substance of the wart, being careful not to involve surrounding healthy tissue. This method is not without danger.

No. III. This patient, a man, had accidentally stepped into a vat of boiling water, scalding the leg very severely. The surface was entirely denuded of skin

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and after trying most of the standard dressings recommended for such cases he applied Thuyol Ointment and obtained the best results. In a short time the whole surface healed nicely and smoothly and with a minimum degree of contraction of cicatrix.

No. IV. This was a case of lipoma of the forehead. It was first excised a collodion dressing. Large growths were carefully treated by inecting a small completely under general anesthesia, but after a time reappeared as a series of multiple growths around the place where the original tumor had been. These were treated by the local application of Thuyol pure, driven into the substance of the growth by static kataphoresis. Under this treatment it finally disappeared completely and apparently permanently, as this was two years ago and there are no signs of return at present. The same physician has used Thuyol quite extensively in the treatment of venereal warts. He says the results are always satisfactory. He simply applies the pure oil externally to the growth and has never found any necessity for hypodermic use.

Although none of these clinical cases refer to use of the drug or mucous membranes it is found equally effective in the proper class of cases, those showing tissue hypertrophy. The writer has seen good results in nasal polypi from the daily use of Thuyol Compound with an atomizer and occasional local application of the pure oil to the growth, carefully avoiding the healthy adjoining tissues.

From the foregoing statements it is evident that this drug occupies quite an important position in external therapeutics.

In conclusion we would repeat our caution against hypodermic use or the application of pure Thuyol to normal tissue.—A. L. Muirhead, Professor of Pharmacology, Creighton Medical College.

THE CAPITOL.

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Nebraska State Medical Association.

TO THE SECRETARIES OF COUNTY SOCIETIES: When you send in your reports please make them as complete as possible; it will enable us to keep up the card index system correctly. I would urge you to send them in by April first in order that I may report the same to the secretary of the American Medical Association. As you are aware, they are getting up a National Medical Directory and they want, as nearly as possible, to get the correct list of the officers of the several county medical societies by that date, for they go to press at that time. Yours fraternally, A. D. WILKINSON.

Notes.

Exhibits in the Lindell Hotel.

Do not forget the dates—May 1, 2 and 3.

Headquarters will be at the Lindell Hotel.

There will be a smoker at the Lindell Tuesday night.

The House of Delegates will meet Tuesday morning at 11.

We are expecting some papers from the profession of other states.

The first general session will begin Tuesday afternoon at 2 in the Auditorium of the Lindell.

The visiting ladies will be entertained at the home of Mrs W. L. Dayton Tuesday night of the meeting.

The past year has been a prosperous one, and every member of the society who can should put forth every effort to come to the May meeting.

There will be a banquet Wednesday night at the Lindell Hotel, for which there will be a charge of $1.50 per plate. Bring your wives and sweethearts.

The scientific program promises to be superior to any that has been presented to the association; the feature of the authors of papers presenting a short abstract is meeting with approval of the members.

All railroads in the state will offer the following rates: Tickets will be sold to Lincoln and return on the certificate plan (one and one-third fare). Buy your tickets, paying full fare, taking the agent's receipt; this, when presented at the state meeting for proper endorsement, together with a fee of twenty-five cents, will entitle you to a one-third fare return ticket.

Committee on Public Policy and Medical Legislation—Auxiliary Members.

A. S. von Mansfelde, Chairman.....Ashland
W. D. Shields.....Holdrege
G. H. Brash.....Beatrice
A. F. Jonas, President N. S. M. A.....Omaha
A. D. Wilkinson, Secretary N. S. M. A.....Lincoln

All matters concerning the committee and its work should be addressed to the chairman of the committee, Dr. A. S. v. Mansfelde, "Quality Hill," Ashland, Neb.

Auxiliary members of the committee: Resolution adopted by the House of Delegates at its session at Omaha, May 3 to 5, 1904:

"Moved, seconded and carried by the board that the appropriation of $200 for medical legislation be continued, and we recommend to the House of Delegates that the secretaries of the county societies in the state be made auxiliary members of the committee on public policy and legislation and that this appropriation be used for the general purposes of this committee."

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gravity of the situation, he is loath to give a final opinion without a blood count and urinary analysis which call for an expert chemist and a trained microscopist. Urinary disturbance often demand not only an expert in his line but requires a cystoscopic exploration which must be done by a skilled cystoscopist. Gastric disorders require examination of gastric contents, which demands one skilled in gastric examinations. A train of neurotic conditions may be conspicuous in the same case and demand an expert opinion of a neurologist. Heart and lungs demand expert investigation. Pelvic organs present conditions requiring more than ordinary examination. Skiagrams may be required to locate foreign bodies, and reveal injured or diseased bones, demanding the services of a skilled skiagrapher. No one would for a single moment expect any one man to have attained the highest possible proficiency in every one of the aforesaid specialties. And yet the case demands the highest skill in several and possibly all of these. It becomes apparent at once that several men must frequently be associated in a given case, and as a matter of fact, they frequently are. But is this co-operative council as often resorted to as the exigencies of every case demand? As surgeons, before we begin our operation, do we always make a blood examination, a urinary analysis, a careful thoracic exploration? Do we always ask a colleague to examine the case before or after us with view of controlling and correcting our own investigations? The modern tendency to mergers and the union of specialized workers, has had its effect on the medical profession. There are many instances where several physicians, all skilled in different lines of work, have effected a union. Every case of more than ordinary importance passes under the observation of several examiners and receives the benefit of their special and united council. Each examiner is a check on the other, and yet each amplifies and makes more thorough the findings of the others. Should the one overlook an important fact it will be found by one of the others. The daily association of such men will act as a stimulant on each and the final results of their united effort must be of a superior kind. Diagnosis in all its phases is becoming more and more an exact science.

The genius of a bygone day, who could always at a glance know the exact condition and know in an instant any affliction which confronted him, who could with his magic touch determine to a fraction of a degree the amount of fever present, has almost passed away into an oblivion where he rightfully belongs. Mysticism and mystery have given way to plain facts that are daily demonstrated by plain and painstaking physicians who tell the plain truth.

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The diagnostician of today knows his physiology and his pathology, and he calls to his assistance aids culled from every department of physics. He has roamed through the entire domain of natural sciences and he has selected here and there and almost everywhere, methods and appliances that enable him to locate and know a given disease with startling exactness. To attain the highest possible accuracy means the co-operation of several specially skilled workers. Consequently we cannot brush aside the thought and inquire, are we fully conscious of our responsibilities if we do not fully avail ourselves of the aforesaid co-operative aids?

Turning from the scientific to the business aspect of our profession, let us inquire if any of us are so completely wrapped up in strictly medical and surgical problems as to be unconscious that there is a commercial side of our vocation. Has any one here present freed himself from the stimulus of personal gain? Are money matters a matter of indifference to him?

Are any such present? If so, the assurance may be given them, that they are laboring under a delusion, it is a phantom of the mind, a vagary that is giving the lie to every act.

The standard by which success is measured consists not alone in the money standard which seems the chief one. Honor, position, pleasure are measured by degree and rank. To attain any of these money is essential. Occasionally we meet those who profess to live on a plane elevated above mere money getting, and you and I have met those who apparently live entirely for their science; pecuniary rewards seem strangers to them. The rank and file of physicians, however, seriously consider the rewards to which they believe themselves entitled and justly so. To say that one can and does and will live for his profession without a thought of reward, is mere cant. Every one is entitled to the fruits of his labor, and if he does not insist on his just dues he loses sight of an important responsibility that he owes to himself and those dependent on him. There are some men in every walk of life, absolutely devoid of business sense, and the physician makes up a large quota of that number, but that does not lessen the desire for the comforts and pleasures of life. There are those who repudiate every phase of commercialism as unbecoming a physician of high ideals. This type of men foster deceit which induces others to hide motives, that are otherwise fair if done openly. In other words it is mere cant when these men profess to devote their lives to humanity without a thought for compensation. Most men do think of and expect rewards of one kind and another, and justly so. Some self-styled saints pretend an altruism that is intended only for deceit.

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The glamour of such an impossible idealism is so transparent that the hidden hypocrisy is easily revealed. Some men have a vagary of the mind that they really delude themselves into the belief that they are not affected by the stimulus for personal gain.

There are many standards by which personal gain is measured. Such standards are represented by honor in the profession and out of it; by power, political and social and professional; by money, both for the love of it and the power it gives, and the happiness it is supposed to bring. The pursuit of happiness is the all-absorbing quest of every living creature. It is legitimate and laudable, when the rights of others are respected and the means to an end are free from deceit and hypocrisy. Whatever may be the means of happiness for you and for me, be the means a pursuit of scientific investigation, be it literature, be it art, or whether your joy consist in travel, social entertainment, the possession of large or small estates, the ownership of houses or horses, none of these can be indulged in without the world's medium of exchange. The demands of modern living and modern research imperatively force every one of us to heed the pecuniary side of our profession. Commercialism is a word that we are inclined to decry. It is not worthy to have a place in medicine and yet we can escape from it? In our struggle for existence we must meet it at every turn. Is it not true that in our age the product of every brain is measured in dollars and cents. Commerce and medicine cannot be separated. We indulge in cant when we assume to ignore the business side of our profession. Therefore let us be honest and freely admit that we are in business. Poor business men, most of us are, that is true, but still we are doing business. The sooner we recognize this fact, the sooner we will be doing business on business principles. Those who have assumed the high position of insisting that they are exclusively scientists and who decry every one as a commercialist who mentions fees, income or compensation, are often men whose theory and practice are at loggerheads. They preach an altruistic idealism in science openly and practice a sharp and exacting commercial game privately. Their secluded and private game bears, sometimes, all the ear-marks of the sharp, calculating, deceitful, avaricious and grasping Shylock. In strictly commercial lines, there are recognized two principal classes of men: The ones that practice fair dealing, fixed prices, stable goods, honest statement of facts regarding them. The other class, sharp dealing, shifting prices, questionable goods, misrepresentation of their qualities. The first is respected, trusted and sought and enjoys constant and continuous patronage of desirable people. The second can only thrive and exist on a constantly changing and undesirable custom.

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The physician and surgeon must follow business methods that are open to inspection, that are honest and fair to all who have a part in a given transaction, if he desires to enjoy the continued and permanent confidence and friendship of his patrons. If he desires to be true to his patient and to himself he must not only be absolutely frank regarding the ailment under consideration, but he must be as free regarding the commercial aspect of the case. He must insist on compensation commensurate with the services rendered, stating freely and unreservedly what the services are for. He further should insist that any aid given in the case by a colleague, be remunerated by the patient. There should be no pretense that either the attendant or consultant has rendered his services without charge; both must be paid by the patient and he must know how much to each and also the nature of the services should be known to him. There should be no pretense on the part of an attendant that his services are rendered free in a case after his examination where the patient is referred to a specialist for opinion or treatment, when he (the attendant) attempts to exact a fee from the consultant for such recommendation. If he secretly demands a division of fees he begins the transaction with a deception. He misrepresents to his patient and trusting friend, he pretends that his interest and affection is so great that he will sacrifice a day or two for no other purpose than to see that he obtains the best advice and does not fall into the hands of the Philistines, when his real purpose is to exact tribute, for himself, from the consultant, making him the collector and sometimes the robber, that his share may be as great and sometimes greater than that of the consultant who assumes the entire responsibility for the treatment. How much more fair and honest and business-like it would be if such an attendant would inform his patient, "I desire you to go to Dr. X. because he pays me a higher commission than any of his competitors." Then the victim would know the truth, then he could intelligently choose between the man who pays the highest commission and the man who is best able to do the work.

No one man can make a bargain; it requires at least two. If the party of the first part, the medical attendant, begins the transaction in dishonor, he cannot complete it without collusion on the part of the party of the second part, the consultant. Therefore, if the attendant is unfair, the consultant must be likewise unfair or the bargain cannot be completed. The patient is kept in darkness by both regarding the real state of affairs.

You and I have known of cases that have undergone surgical operations for no other reason than for the fee obtainable. And

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then have you and I not known of cases where the attendant had made an erroneous diagnosis, and yet the consultant did an operation for no other purpose than to procure a fee for the attendant as well as for himself? These allusions are made for no other purpose than to illustrate what the division of fees may and does lead to in only too many instances. The clandestine division of fees is a form of bribery that must be placed on the same level with the purchase of votes to aid the election of a politician. You and I have known practitioners of medicine to change their patronage from one specialist to another because the latter paid a higher commission. In like manner the freedom loving voter often changes his vote from one candidate to another because the purchase price of his vote has been increased. Before the law the bribe giver and the bribe taker are equally guilty. In our profession both the commission giver and the receiver of the same are equally culpable. Both realize the unfairness of the transaction because both deny the deal. The attendant would emphatically deny that he was prompted by a money consideration in his recommendation, and the consultant usually insists that his services were sought without solicitation or inducement. Both are conscious of having committed a wrong, otherwise why should there be any denials?

There are specialists who openly and unblushingly announce that they pay a large commission for all work referred to them. Such men usually snap their fingers at the opinions of right-minded persons. Their methods of business would not be regarded as very high in trade circles. Their followers are men who have become blunted to all sense of decency. They do not hesitate to vilify and slander an honored and able member of the profession in order that their victim may be landed where the money returns are the greatest. Do I overdraw the actual state of affairs? By no means. Every statement herein made can be verified by competent witnesses. Every physician in this audience has more or less knowledge of these things.

Do not misunderstand me. It cannot be considered just nor fair, that under all circumstances, the specialist should exact his full measure of compensation regardless of the attendant. In cases where the specialist renders services in the line of his specialty and the attendant has charge of and carries out the after treatment and shares the responsibility, and where there is a limited fee, the payment may be made in a lump sum. The division of said fee may be in two equal parts or in any other fractional part as may be agreed upon. The patient should have full knowledge that the compensation is for both. In cases where the attendant accompanies

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the case and is away from his business for a day or more, there should be an explicit understanding before starting, that loss of time must be paid by the patient at so much per day. That all time devoted to the case before leaving home must be fully paid, and the consultant should see to it that the parties are fully informed as to the services rendered and time lost by their physician. It is needless to state that in all cases where assistance is rendered by one physician to another that the compensation should be fully commensurate with the character of the service rendered and such items should appear in the statement of account. In other words there should be an explicit business-like understanding so that each party to the transaction is fully aware of his share of the duties as well as compensation in any given case. No matter how deep our scientific interest we cannot escape the commercial side of the case. This being true, let us do our business in a business-like way, see to it that each party to the contract is fully aware of every detail of it.

The most degrading aspect of the commission practice, is the solicitation of cases by offering to return to the attending physician and others one-third or one-half, or even more of the fee obtained. It is difficult to understand how a specialist can maintain his self respect who builds up his business by attracting recognition, not by his skill, but by his bribes. It is equally difficult to comprehend how a medical attendant can traffic in human lives when a money consideration decides who shall assume the responsibility of an operation or treatment that he cannot or dare not assume himself. Such men are devoid of all loyalty, they have an utter disregard of the welfare of their patients. They trample honor and honesty under their feet. Their sole aim is for the commission. The author has known of several cases that suddenly recovered when the attendant was informed that no commission was forthcoming and suffered a relapse when the attendant found a consultant who willingly or reluctantly complied with the command "Hands up."

In view of these well known facts can any one deny that it is unbusiness-like, unfair and unprofessional and detrimental to the best interests of the profession, to divide a simple consultation fee, or fees paid by the patient to the consultant?

Long experience has taught that the best plan in all cases where the patient is in fair pecuniary circumstances, that each attendant engaged in the case render his own statement for all services performed, and that they be paid by the one whose welfare required his attendance. Division of fees should only occur where the means are limited and where each attendant shares in the treatment and responsibilities and then with the full knowledge of the parties to

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whom the services were rendered. Such methods are time-honored, but may be regarded as antiquated by the grafter. The old time methods of square dealing will inspire our patrons with confidence and respect and our profession will rise on a higher plane, however lightly the commission highwayman may think of them.

When all is said and done, we must confess that the majority of practitioners are high minded and honorable. They are above cant and deception. They spurn bribery in every form, they refuse to be parties to any irregular transaction and place the welfare of the sufferer above all.

Involuntarily we ask the questions: Are the specialists just to each other? Are they fully alive to the responsibilities and duties they owe to each other? Are they as respectful to each other's opinions as justice demands? Are they as charitable in their comments and criticisms of each other's works as they should be? Are they as rigid in their adherance to the truth regarding each other personally and professionally as they should? Are they fair and just to each other in reference to the commercial aspect of the case? Do they sometimes underbid for the purpose of securing the case?

We must admit that this class of practitioners is not composed of saints. A certain proportion, just how great that proportion is difficult to estimate, are conscientious and fair toward their patrons and colleagues—men who are incorruptible. Another proportion, and how great that proportion no man can estimate, for these people bear a saintly exterior and have a charitable demeanor, who in reality are the pirates in the profession. Men who, either by insinuation, by deception, by misrepresentation, by bribes and underbidding, or by all of them, obtain a following and a business. Such methods, you will agree, are not only unfair, but are the stock in trade of the fakir and the charlatan. They deserve the contempt of all fair minded men. The specialist, as well as all practitioners, should employ only one method to obtain recognition and that is the endeavor to excel in skill and learning and not in the questionable methods that offer inducements in the form of commissions, and that deal in deceit and hypocrisy.

Graft has so permeated every phase of commercial and political life that confidence in the integrity of the modern business world has been severely shaken. Graft has crept stealthily into the medical profession. It has such hold on some of its members that they not only consider every case that falls into their hands as legitimate prey, but they look upon the expression of a commission out of the consultant who assumes the entire care and responsibility of the case, as proper and right.

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As the public has lost confidence in many business methods in commercial lines, so will the public lose confidence in the profession that countenances graft. Its members who seek to build their future on pecuniary bribes will lose. Those who have the courage and ability and believe in skill as the only road to success, will win. Deception must lose in the end. Square dealing and fair play will win as certain as the night follows the day.

Now, then, a glance in retrospect. We must confess that as a profession we have not availed ourselves of all that the science of medicine has placed at our disposal. We have not kept ourselves thoroughly informed of all that is known in the science of pathology, diagnosis and therapeutics. If this is true, are we as thoroughly informed as we ought to be? Are we constantly on the alert to acquire every fact that may aid in the recognition and cure of disease? Think of the many idle moments and hours that some of us fritter away in thoughtless amusement when we should be in our laboratories working out the problems that are not clear to us. Do you think it true that some of us are more concerned about our earnings than our science? If so, is it not a very short-sighted policy? The leaders of our profession are a living exemplification of the fact that if we strive to perfection in our science, the pecuniary reward will come unbidden. The public is not slow to recognize merit. Every man in due course of time will sink or rise to his proper level. The charlatan may succeed for a time but he must shift from one field of operation to another; he must find new dupes constantly.

Now, then, am I stating the proposition too strongly when I say, that if as a profession, we avail ourselves of all known facts pertaining to the recognition and cure of disease, that if we sacredly adhere to the method of square dealing, we need have no fears of Eddyites, Dowieites, Stillites, and all the rest of the miracle workers? It is my belief that defective education and improper qualifications of a large percentage of those who practice medicine, have been in part responsible for the existence of the hordes of irregular practitioners. The remedy lies in the best possible preparation of the young practitioner. He should be so educated that he acquire and retain the student habit throughout his professional career. He will then eagerly search for every new discovery, for every hint or suggestion that may make his practical work more exact. Having attained the highest qualifications, he then enters upon the performance of his life work. He should not only cure disease but he should take the public into his confidence and instruct them in the limitations and possibilities of the healing art. If he deals honorably

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with the public, by demonstrating the possibilities of human attainment, if he is frank and consistent he will fulfill the great responsibilities that are inseparable from his calling.

If we build the practice of medicine upon a foundation that has for its chief supports, an exact anatomy, a sound physiology, a clear pathology and a rational therapy and a square deal, empiricism will become a thing of the past, legal enactments and an ethical code for the regulation of medical practitioners will be superfluous.

The committee report on the president's address will appear in the July WESTERN MEDICAL REVIEW.

Original Articles.

MEASURES OF PRECISION INFLUENCING PROGNOSIS.*

LE ROY CRUMMER, B. S., M. D., OMAHA, NEB.

In the practice of medicine diagnosis always should assume first place, but an accurate diagnosis is by no means everything, measured either from the physician's or the patient's standpoint, for after all to content one's self with an accurate diagnosis falls far below the achievements a physician should hope to fulfill. Of greater importance to those in whose interest we work is the prognosis and the possible relief. Consequently our examination should lead us on much further than merely placing the symptom complex in the proper nosological position.

The prevalent idea among the people is that the best physician is the one who has the most numerous secret formulæ for the cure of illness; but we know, though it is hard to convince the laity, that there are no secrets of therapeutics, but that the facts are open to all, and the best physician is the one who can best adapt definite facts of therapeutics to the accurately diagnosed case. In addition to this diagnostic ability and therapeutic knowledge there is yet one thing more the physician must know, and that is the natural history or course of disease. And after all, the best physician is the one who, relying on these various factors, can most accurately forecast the progress of disease, whether favorable or unfavorable.

In constructing our impressions of the future of a given case, well balanced experience is our best guide. We are swayed by many facts, some cognate, some mere impressions, some are capable of definite expression and some truly belong to intuition; some reliance can be placed on deliberate reasoning, but many a true

* Read before the Nebraska State Medical Association, Lincoln, Neb., May 1 to 3, 1906.

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prognosis is based on ideas which defy expression. It would certainly be advantageous if we all would seek to analyze the data upon which we base our prognosis and endeavor to express in some form our experience along these lines for the benefit of others.

The modern trend of medical science brings out many ideas which can be utilized fully as much in prognosis as in diagnosis, and there are a few of these procedures which I wish to bring to your attention to-night.

Accurate prognosis presupposes exact diagnosis, and exact diagnosis needs system. Further than this, with the many details required in the modern examination, one of the most necessary requisites of the physician is the power of relying on one single precise manipulation at each stage of the examination. Having then an accurate understanding of the patient's condition, the point of attack must be recognized. This requires an understanding of perverted functions, tissue change, altered topographical anatomy, and the interdependence of organs; but further than this, a knowledge of therapeutic measures and methods of controlling with exactness the progress for the better or worse in the disease with particular attention to the organ or function we consider the corner-stone. Aside from the satisfaction to ourselves in being able to definitely measure improvement, it is of great benefit to our patients to be able to demonstrate to them in terms and equivalents they can understand the favorable progress of their cases.

From this standpoint scales are the most valuable adjunct. In all the diseases of metabolism, digestive disorders, tuberculosis, etc., favorable effects of treatment will be early manifested by a gain in weight. Obesity, generalized edema, myxedema, and a few other conditions, on the other hand require a decrease in weight, and in these diverse conditions a set of scales enable us to absolutely discount our patient's feelings and analyze the progress of his case with an accurate measure.

Of scarcely less importance is the estimation of hemoglobin. This is very easily done and any of the cheaper instruments are sufficiently accurate for our purpose. Practically all chronic diseases are accompanied by a simple anemia, and almost always the first sign of improvement is manifest in an increased hemoglobin percentage. Many times I have been able to demonstrate a 5 per cent. or 10 per cent. increase of hemoglobin in cases of tuberculosis before there was any gain in weight. In combination with digestive disturbances, various functional and nervous diseases are perpetuated by the vicious circle formed by anemia and malnutrition,

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and only yield to our treatment when the anemia is more or less overcome.

The further examination of the blood by counting red and white cells is of the same importance but in a much less numerous class of cases. The progress of a pernicious anemia or a leukemia can be measured in no other way. The finer details of a blood examination also may be used in prognosis. There is considerable authority for the belief that megaloblasts are an expression of irritation of the bone marrow, and consequently when many megaloblasts are found it shows that the bone marrow is capable of responding to the demands of the organism. No direct significance pertains to the relative number but under certain conditions the absence of megaloblasts is of serious omen in myelogenous leukemia, and the period of improvement in pernicious anemia is often ushered in by a sudden increase in the number of these cells. In lymphatic leukemia the prognosis in general is serious in direct proportion to the percentage of large mononuclears.

The pendulum of modern thought has unfortunately swung away from the medicinal treatment of tuberculosis, but the good effect of certain drugs can be definitely measured. Landerer has shown that certain agents induce leucocytosis in tuberculosis, and that tubercular processes are favorably influenced by the leucocytosis. So firm is my conviction of the truth of this that I base my prognosis of these cases on the white blood-cell count, paying very little attention indeed to changes in physical signs in the early stages of this disease. At the time of the first examination the white cells are counted, then daily injections of cinnimate of soda are given for two weeks; then another white cell count is made and if the increase in white cells is above 60 per cent. the case has a favorable prognosis; an increase of less than 40 per cent. means a practically hopeless case. The few between 40 per cent. and 60 per cent. require suspended judgment till after a longer treatment. In other words we have here an active therapeutic aid whose effects can be measured with sufficient accuracy to enable us to make a definite forecast of the case in a very few weeks. Perhaps of interest is the fact that in these cases of favorable omen I have repeatedly been able to demonstrate an equally definite change in the arrangement of the individual bacilli in the sputum, where before treatment the bacilli were seen with no particular evenness of distribution after a few weeks' treatment a large proportion were found inside the dead leucocytes, or the pus cell, many cells containing three to six bacilli. This is in harmony with Metchnikoff's theory of phagocytosis.

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The examination of the sputum is just as important in pneumonia as in tuberculosis. The typical case of pneumonia is rare, the physical signs vary extremely, and we know that many different germs cause consolidation of the lungs which must be recognized clinically as pneumonia. But in making your prognosis beware of saying that the crisis may be confidentially expected on the fifth, seventh, or ninth day unless a careful microscopical examination has shown that you are dealing with an infection of pure pneumococcus. The grippe bacillus, the streptococcus, Loeffler's bacillus, Friedlander's pneumobacillus, either in pure culture or in mixed infection, may be responsible for the consolidation, and if so resolution is almost always by lysis instead of crisis.

The earlier the recognition of typhoid the easier to control the course of the disease by proper therapeutic measures. The use of the Widal test, or the modified Widal, using an emulsion of the dead bacilli, and a test-tube, instead of a microscope, will frequently save four days to a week in the definite diagnosis and so allow instituting the proper treatment this much earlier, which cannot help favorably influencing prognosis. I have seen cases, disguised as bronchitis, rheumatism, or grip, prove to be typhoid by means of the serum test a week before there was a combination of symptoms justifying even a provisional diagnosis of typhoid.

The examination of the urine is one of the essential aids in diagnosis, but usually we learn little which helps us in prognosis. This is particularly true with the various forms of Bright's disease. In the parenchymatous forms, either acute or subacute, the percentage and total amount of albumin fluctuates so from day to day that a temporary decrease is of no moment; only when the daily decrease is persistent and long continued can we base a favorable prognosis on this point alone. In chronic interstitial nephritis the prognosis cannot be based with any certainty on the absence or presence of albumin, or in fact on any of the urinary findings, as the source of danger in these cases usually lies much farther back than the condition of the kidneys. The twenty-four hours' quantity of urine sometimes influences our prognosis. With cardiac incompensation a marked increase in the daily output is a sign that our treatment is effective, while a small daily quantity persisting in spite of cardiac stimulation is of grave omen. In drink restriction cures the rapidity with which the urinary output decreases is a direct measure of the success of our treatment and an exact indication of its propriety.

In diabetes the daily fluctuation of quantity and sugar percentage

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is of no moment, save only when a comparison is made against a weighed and constant diet. Then a gradual decrease in sugar shows that the body is utilizing a greater per cent. of the carbohydrates ingested and can be regarded as favorable. The point in the urinary examination of a diabetic of greatest prognostic interest is the presence or absence of the acid series. The presence of considerable amounts of acetone, diacetic acid, and beta-oxybutyric acid should serve to put us on our guard, but this condition does not necessarily signify an immediate fatal termination. I have seen this condition of extreme acidosis alternate with periods of uncomplicated glycosuria over years of time in a case without any appreciable change in the condition of the patient.

A great deal of time is also wasted in determinations of other urinary solids. Quantitative tests for urea and uric acid are absolutely without value from a diagnostic or prognostic standpoint, as these examinations must be based on a more careful estimation of the N content in the foods ingested than is as yet possible in clinical medicine.

The accurate prognosis of cardiac incompensation depends on many factors, including changes in edema, digestive disturbances, dyspnea, pulse rate, and so forth, which are so familiar that it is not necessary to discuss them. But in the many cases with one or more dilated chambers the size of the heart is of the most importance and changes in this can be demonstrated from day to day by the location and condition of the apex beat and the width of the relative cardiac dullness. We can mark the size of the heart on the skin with an indelible pencil, or measure the exact outline with a tape measure. Absolute accuracy is essential, as a difference of one-half inch is here very considerable. Under appropriate treatment the width of the heart may diminish a finger breadth or more a day or in unfavorable cases increase even more rapidly. In cases without much dilatation other measures are necessary. If by a few days' observation we could estimate the recuperative power of an impaired heart we would gain much in prognosis. In a rough way this can be done by testing each case with the same drug given in the same way. A grain of assayed powdered digitalis leaves given twice daily for four days is the measure I use to analyze the recuperative power of the heart. The response to this treatment will vary greatly but in general the prognosis is favorable in direct proportion to the improvement noted, and if no improvement whatever results the prognosis is bad, as foxglove will probably have no effect at any time and we must depend on other cardiac stimulants.

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For those cases of arteriosclerosis, chronic Bright's disease, angina pectoris, and other conditions accompanied by high arterial pressure we can directly measure the efficiency of our treatment with the sphygmomanometer. It affords great satisfaction to reduce blood pressure from 200 mm. Hg. to 150 with nitrites and see cardiac pain stop, or to bring down the pressure from 250 to 200 in an old case of chronic Bright's disease and see the mental stupidity and depression pass away.

The stethoscope devised by Oertel enables us to measure the loudness of the individual heart sounds and this too enables us to check up the progress of the case by a change in the intensity of the individual cardiac sounds.

Various authors starve a patient with gastric ulcer for ten, fourteen, or twenty-one days, but what is the use of an arbitrary number of days when we with a little trouble can tell exactly when the ulcer is healed? There is hardly ever sufficient hemorrhage to cause a characteristic tarry stool, but there are always minute hemorrhages from gastric or duodenal ulcer and the blood can be demonstrated in the stool by the aloin or guiac test. Make the test each day and when the blood is no longer present the patient can be safely fed whether it is seven or seventeen days, because the ulcer is healed.

The lower border of the stomach can be safely and accurately located by atomizer-bulb inflation, and in cases of motor insufficiency, gastric atony, dilated stomach, call it what you will, the improvement brought about by proper diet and intragastric electricity can be demonstrated to the patient both by the gain in weight and the elevation of the lower border of the stomach, and a neurasthenic with a potential leaning to Christian Science is convinced that there is something in medicine after all.

Pain in the joints, muscles, and regions of nerve distribution, are carelessly, almost universally classed as rheumatism, and just as universally treated with salicylates. In many cases the result is brilliant, but in more the result is a complete failure, and we cannot tell whether the failure is due to lack of absorption or improper choice of drugs or a mistaken diagnosis, but because we have had such good results we persist in the use of salicylates even to the point of a disturbed digestion or a drug eruption. We can test the effect of the salicylates in a given case very simply. A sterilized solution is prepared so that each 25 mm. represent 5 grains of natural sodium salicylate and ½ grain citrated caffein. This dose is carefully injected into a vein at the bend of the elbow

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and if the pain is rheumatic in orgin it will be relieved quicker than by the administration of a hypodermic of morphine. The swelling of a rheumatic joint also diminishes at once. In the event of a favorable result of this test we can continue treatment by salicylates, either in the same manner or by mouth; but if the pain is not relieved salicylates will not afford any relief, no matter in what form or in what doses they are given.

In no class of cases is the prognosis so universally misunderstood by physicians as in the nervous chronic invalids with dyspeptic, pelvic, and general abdominal symptoms. That cases of this class can be cured is shown by every quack medicine, by every irregular form of practice, and by every form of medico-religious mysticism. These cases keep the surgical clinics full, and the surgeons busy, but if the physicians will consider these cases from a common sense standpoint the prognosis is universally favorable. All of these cases present one or more of the following physical conditions: dilated and prolapsed stomach, prolapsed and contracted colon, floating kidney, retroflexed uterus, mucus in the stools; but in addition to these conditions on inquiry into the history of the case we learn of a period of stress followed by abdominal pain which was treated by badly advised restricted diet. Then comes constipation and progressive loss of weight. When the condition has advanced so far the myriad nervous symptoms appear, and relief is sought,—the gynecologist does an Alexander,—the surgeon removes the appendix, or, utilizing the latest fad, does a gastro-enterostomy, the stomach specialist washes out the stomach, the neurologist diagnoses a functional neurosis and uses electricity, the oculist fits glasses, each curing a certain percentage,—but the vast majority are still invalids.

Now for the common sense view. This displacement of organs is not the disease, as 20 per cent. of all individuals normally have gastroptosis, so that it is not necessary to bring these organs back to our idea of anatomical accuracy. The nervousness is not the disease because under proper rest treatment this disappears at once. But take the average daily diet of these individuals and figure out the calory worth and you will find it is 20 per cent. to 40 per cent. below the ordinary requirements of the human economy,—take the elements of the daily diet and you will find it is of easily digestible material which leaves no residue for the colon and so promotes constipation. Then this is the point of attack. They are simply suffering from starvation, intermittent or continuous, and a diet arranged to supply an excess of calories and to

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prevent constipation will restore them to health. It will not alter the visceral anatomy and put a stomach where anatomy teaches us it should be, but it will put it in the topographical position normal for that individual and with which for years he enjoyed good health. These people have had bad advice about diet, they have gradually cut out one article after another till they are living on slops,—which not only cannot contain sufficient caloric units, but further violate all the physiological demands of the digestive organs, for Pawlaw has recently shown that the human economy is so adjusted that the greatest power is present in the digestive juices when the three classes of food stuffs are given simultaneously, in an appetizing combination.

Personally I have never seen one of these cases living on soft diet who could not eat and digest a full meal big enough for a laboring man. The true element of the prognosis in the individual case depends upon the calory value in the diet administered, the rapidity of the return to a daily evacuation of the bowels without cathartics, and finally the evidence of the scales.

There is no question that surgery has more charms for the student and the average practitioner than internal medicine, and if we seek the cause we will find that a portion of the charm for both physician and patient lies in the quickly demonstrated efficiency of treatment and the rapidity of results. But if the internist works as he should, utilizing all the care possible and taking advantage of all progress in the science of medicine, he can very easily demonstrate the efficiency of his treatment; and while from the very nature of things the results are not so quickly obtained they are none the less certain, and, in my belief, on any series of a large number of unselected cases falling properly to the surgeon or internist the ultimate prognosis, that is the physical condition of the patient five to ten years afterward, is just as good in internal medicine as in surgery.

GALL-BLADDER SURGERY, WITH SPECIAL REFERENCE TO CHRONIC PERICHOLECYSTITIS.*

A. I. MACKINNON, M. D., LINCOLN, NEB.

During the past few years surgery of the gall-bladder and bile ducts has changed in its salient points of diagnosis, recognition of pathologic change and treatment of resultant conditions. The presence or absence of gall-stones is considered only as a detail in recognizing the trouble, and the pathology is now realized to take

*Read before the Nebraska State Medical Association, Lincoln, Neb., May 1 to 3, 1906.

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in many of the important viscera of the abdomen. Up to this time cases have been allowed to pass notice and to go unoperated upon until some marked symptom, such as impaction of a stone or an acute exacerbation, has rendered an operation imperative.

The following facts are generally recognized and admitted:

I. Gall-stones are merely a result of a former mild or subacute infection of the gall-bladder.

II. Gall-stones may, and actually do, remain in the gall-bladder for a lifetime without having caused symptoms.

III. Infections by the bacillus coli communis and bacillus typhosus are the most frequent causes of the gall-stones.

IV. Symptoms of gall-stones depend upon the location of the stones, whether they are in the gall-bladder, cystic or common duct.

While pathologic changes have been going on in the gall-bladder, serious pathologic changes have also been going on outside the gall-bladder, producing a chain of symptoms the cause of which has been unrecognized.

The condition of pericholecystitis is more common than has been ordinarily supposed, and it is remarkable how often the condition can be outlined in chronic cases of indigestion, dyspepsia and kindred forms of gastric and intestinal troubles. That it is so common can undoubtedly be attributed to the fact that cholecystitis is often a sequel or accompaniment of many of the acute infectious diseases. It may possibly be considered as frequent an occurrence as an accompanying endocarditis.

The relation to the pneumonic infections is marked and at the same time peculiar, inasmuch as it commonly shows up so early in the course of a pneumonia that it is almost impossible to state whether the pneumonia is secondary to an infected gall-bladder or whether the pathologic gall-bladder is the result of an infected lung. The statement, however, that gall-bladder disease is secondary to acute infectious diseases, I can clearly demonstrate by repeated histories in my own cases.

The frequency of involvement of the appendix leads one into a questionable field as regards etiologic fact. That the appendix may be the prime factor in causing pericholecystitis is true, but it is equally true that an infected gall-bladder may in time cause involvement of the appendix. That this is true is proven conclusively by the fact that often the appendix will be found perfectly normal and the gall-bladder pathologic.

The symptoms of a chronic adhesive pericholecystitis are complicated, and may involve such questions as ileus (paresis of bowel),

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peritonitis, dilation of stomach, cancer of stomach, nervous dyspepsia, catarrh of stomach, ulcer of stomach, chronic dyspepsia, intestinal indigestion, malaria, membranous colitis, chronic constipation, mucous colitis, and appendicitis. These are merely symptoms of the condition, but may lead the observer astray by their prominence and cause him to overlook the primal and causative factor.

Adhesive bands extending from the gall-bladder to the stomach will naturally produce symptoms referable to the stomach. Adhesions to the duodenum may produce symptoms of partial or complete stenosis, and should they extend to the colon, will produce a mucous colitis, or, if extending low enough, will produce symptoms in which the condition is too often accepted as a primary appendicitis.

Pain and rigidity over the gall-bladder in all these cases, particularly if coupled with symptoms of stomach trouble, or even a mild jaundice, should lead one to examine the region of the bile passages.

These symptoms are not always mild in character, but may be of such severity as to be a menace to the life of the patient. This, however, is usually due to acute inflammatory exacerbations of the chronic infection.

The symptoms, however, which are referable to the bile passages may be mild in character, and may be so obscured that it is only by careful observation and examination that one is able to differentiate a pericholecystitis. In this latter class of cases one is almost tempted to treat the symptom rather than the disease, but an exploratory incision shows the presence of the adhesive bands, and relief from this condition cures the symptoms.

A case in point here is as follows:

Krafler, aged 28, occupation, machinist; family history negative; previous history, pneumonia (left) eight years ago. Only illness. Present illness, dyspepsia, began many years ago. This became eventually severe in character. All kinds of medicines taken and the usual round of doctors consulted until he was obliged to give up work. When he consulted me he was suffering from pain referable to left intercostals. He had lost thirty pounds and had been blistered and bled over the chest without relief. I was, after careful examination, unable to discover any cause in the chest for this pain. A pericholecystitis was easily discovered and operation advised. The gall-bladder was excised and adhesions to stomach, duodenum and colon freed. Patient made uninterrupted recovery

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and feels well. The symptoms referable to the chest have disappeared. He is gaining in weight and can digest food.

Another case, showing an acute exacerbation from adhesions involving the bile ducts, is as follows:

A. P., male, aged 20; family history negative; personal history, measles and mumps at age of 12. Otherwise no acute sickness. Has always had "stomach trouble," with an occasional attack of colic. These attacks were ofttimes severe and acted like gall-stone colic. When I saw him he had been sick three weeks, being brought in with a diagnosis of typhoid. His colic was at times severe. He was jaundiced and emaciated, having lost about forty pounds. He had a daily temperature, but no Widal test had been made. His case was a well-marked and classic pericholecystitis and I advised operation. On opening the abdomen, the gall-bladder was enlarged many times its normal size and sacculated, with adhesions around the bile ducts and extending to the duodenum. The adhesions were separated and the gall-bladder removed without opening it, and the patient made a rapid recovery, being about the hospital in ten days, and returning to his home, 200 miles away, in fifteen days. In my opinion this was a case which would have gone on to a fatal termination if an operation had not been performed.

In making our diagnosis of pericholecystitis one must not be misled by confounding symptoms or sequelæ for the real condition. A mild, moderate or pronounced jaundice with pain or pressure over the gall-bladder, a marked protective muscular spasm coupled with a history of digestive and intestinal disturbance, acute or chronic, should lead one quickly to the diagnosis of gall-bladder trouble with adhesions to neighboring viscera. The age must be taken into account, as a pericholecystitis is often found in patients many years inside of the ordinary period of gall-stone formation. In my own series of cases the condition was found in a girl of 18 and a boy of 20. Where adhesions have involved the bile ducts, they will have colic (not due to gall-stones.)

The treatment is essentially surgical, and, if we accept the statement of Musser that "Once an infected gall-bladder, always an infected gall-bladder," cholecystectomy with separation of adhesions is imperative. This has been my practice in all my cases and my ultimate results have been so uniformly satisfactory that I will continue the method for the present at any rate.

In conclusion I would summarize the following points of especial note:

I. Acute infections of the gall-bladder are a frequent complication of many infectious diseases.

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II. The frequency of acute cholecystitis as a complication of acute pneumonia can be easily demonstrated and ofttimes it is impossible to determine whether the pneumonia is the cause of the gall-bladder infection, or vice versa.

III. Virulent infections of the gall-bladder are invariably followed by adhesions to neighboring viscera.

IV. When the adhesions become organized they cause symptoms referable to the organs involved. When adhesions compress the bile ducts they ofttimes cause jaundice and biliary colic.

V. The diagnosis of chronic adhesive pericholecystitis is generally easy, provided we do not mistake the symptoms for the cause.

VI. One of the most frequent causes of chronic stomach trouble is a chronic adhesive pericholecystitis.

VII. The treatment is essentially surgical, and includes separation of adhesions and cholecystectomy.

Nebraska State Board of Health.

BEATRICE, NEB., June 6, 1906.

Dr. H. Winnett Orr, Lincoln, Neb.—Dear Doctor: Enclosed find copies of questions used at a recent examination. I hope soon to be able to send you some rules which were recommended by our board to the board proper for adoption. They are for the elevation of standard in this state and I hope that the board proper may find that they can be legally adopted. Very truly yours, GEO. H. BRASH, Secretary.

The rules are as follows:

"All applicants for license in this state, either through reciprocity or by examination, and who graduated since August 1, 1898, must present to the board, in addition to their medical diplomas, a high school diploma of at least twenty-eight points, or a college entrance certificate, or their equivalent, or in lieu thereof pass an examination before the state superintendent of public instruction.

"No certificate will be granted upon reciprocity where the applicant has not resided and been in reputable practice in the state endorsing him for at least one year immediately preceding the endorsement."

The examination questions referred to above are as follows:

ANATOMY.—MAY 29-31, 1906.—1. Briefly describe the animal cell and the reproductive cell. 2. Name contents of the mediastinum. 3. Describe the occipital bone, naming articulations. 4. Describe the pleural membranes, and name arteries and nerves. 5. Give origin and distribution of the fifth pair of cranial nerves. 6. Give origin and insertion of the flexor muscles of the thigh. 7. Give origin and distribution of the sciatic nerve. 8. Describe the orifices of the diaphragm, naming structures that pass through each. 9. Locate the arch of the aorta and name its branches. 10. Describe the prostate gland.

CHEMISTRY.—MAY 29-31, 1906.—1. Define organic chemistry, atom and element. 2. How modify cow's milk to approximate human milk? 3. Write an equation showing production of H. and laughing gas. 4. Give chemical tests for strychnine and arsenic. 5. Define fermentation and putrefaction. 6. Describe accurately Heller's test for albumen. 7. What reaction, normal or abnormal, may be produced by that test? 8. What average amount of

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solids in urine, and how estimated? 9. What are the common determinations in chemical examination of gastric juice? 10. What is the composition of proteids?

PHYSIOLOGY.—MAY 29-31, 1906.—1. Describe the red blood corpuscles as to (*a*) origin and fate; (*b*) form; (*c*) size; (*d*) number; (*e*) function. 2. What is understood by endocardiac pressure? State the causes of the pressure in the arteries, capillaries and veins. 3. Give the accepted theory regarding the mechanism of the secretion of urine. 4. Give the successive steps in the digestion of a meal of roast-beef and potatoes. 5. Describe the temporary and permanent teeth and the usual age for the eruption of each. 6. Describe the normal sounds of the heart, and state how they are produced, and where they can be most distinctly heard. 7. Describe the bile and its uses. Give test for bile. 8. Name one property common to all blood leukocytes. Give some of their physiological uses. 9. Write briefly on internal secretions. 10. Discriminate between the corpus luteum of pregnancy and the corpus luteum of menstruation.

PATHOLOGY.—MAY 29-31, 1906.—1. What is pathology? 2. Describe embolism and thrombosis. 3. Define and describe phagocytosis. 4. What is a neoplasm? Give some examples. 5. Describe sarcoma, fibroma, lipoma, myxoma, osteoma and glioma. 6. Describe a primary and a secondary anemia and give examples. 7. Describe pernicious anemia, chlorosis, leukemia. 8. Describe phlebitis, varieties, common causes and course. 9. Describe and differentiate between gastritis, ulceration of the stomach and cancer of the stomach. 10. Differentiate between arthritis deformans and acute polyarthritis.

MATERIA MEDICA AND THERAPEUTICS.—MAY 29-31, 1906.—1. (*a*) What is the physiological action of heat upon the heart, vessels, nervous system and elimination per skin, kidneys, bowels? (*b*) What therepeutical advantage may it be on the same in nephritis, fevers, swelling after traumatism, septic infection, and how? (*c*) In continued fever when and why use tepid or hot water instead of cold water? 2. (*a*) Quinine; physiological action in doses to 5 grs. on the blood, nervous system, heart and respiration? (*b*) How eliminated? (*c*) What the action in congestion and inflammation? How explained? (*d*) What action is regarded as specific? 3. (*a*) What are the leading uses of digitalis? (*b*) What is the best preparation as a diuretic, and why? (*c*) What danger in its use in nephritis? (*d*) What danger in calcareous deposits in the blood-vessels? 4. (*a*) What uses can you make of adrenalin, thyroid ext., thymus ext.? (*b*) What is codeine, heroin, and dionine derived from? 5. Describe the Brandt treatment of typhoid fever. 6. Give the non-medicinal treatment of cardiac insufficiency. 7. Detail the treatment of diphtheria. 8. Give the hygienic and dietetic treatment of croupous pneumonia. 9. Select a climate for cases of pulmonary tuberculosis, asthma, chronic bronchitis, hay fever, and mention indications for the change. 10. Detail the hygienic and sanitary treatment of scarlet fever.

PRACTICE.—MAY 29-31, 1906.—1. Give symptoms of myxedema. Give treatment. 2. Name the acute infectious exanthemata, giving period of incubation and specific bacterium of each. 3. Give diagnosis and treatment of acute eczema of the face in an infant. 4. Describe in detail the most common method used in the examination of stomachic conditions. Give diagnostic value of absence or presence of acids and juices and significance of conditions found present. 5. Describe diagnostic significance of hematuria. Give etiological factors. How would you differentiate whether the kidneys or bladder were affected? 6. Give differential diagnosis of interstitial and parenchymatous nephritis. Give pathology of both diseases. 7. Give diagnosis, prognosis and treatment of chronic pulmonary emphysema. 8. Give causes, diagnosis and treatment of chorea. 9. Explain the diagnostic significance of the "knee-jerk." 10. Give the abnormal heart sounds and the point of greatest intensity of each.

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WESTERN MEDICAL REVIEW

A JOURNAL OF MEDICINE AND SURGERY.

Published Monthly by WESTERN MEDICAL REVIEW COMPANY,
1238 O Street, Lincoln, Nebraska. Per Annum, $2.00.

The WESTERN MEDICAL REVIEW is the official organ of the Nebraska State Medical Association and is sent by order of the Association to each of its eight hundred members.

H. WINNETT ORR, M. D., EDITOR.

Entered as second-class mail matter at Lincoln, Nebraska post-office, under the Act of March 3, 1879.

VOL. XI. LINCOLN, NEB., JULY 16, 1906. No. 7.

WALTER REED AND YELLOW FEVER.

Well-written books by physicians for popular reading go a long way toward solving the perplexed question of the relation of patient and physician and the public to the medical profession. Dr. Howard A. Kelly has rendered a distinct service to this cause by his book, "Walter Reed and Yellow Fever." The discovery and promulgation of exact knowledge of relationship of the mosquito to yellow fever was quite the most important contribution to medical knowledge of the nineteenth century. Besides the scientific value of the discovery it had also certain dramatic features which render it particularly suitable for narrative treatment.

Dr. Kelley's book exactly fulfills the promise in the title. He has portrayed equally well the science and the art by which Major Walter Reed led up to and finally accomplished his important discovery, and he has also given us such an historical account of yellow fever as makes clear Dr. Reed's relation to its former condition and its condition now. In the estimation of the present writer Dr. Kelly deserves particular commendation for having done one thing which some of the other writers on the same subject have failed to do: that is, he has given due credit, not only to the soldiers who were the subjects of experiment and to the fellow members of Dr. Reed on the yellow fever commission, but he has also recognized the important services of the physician who first promulgated the mosquito theory of the transmission of yellow fever, Dr. Carlos J. Finlay. Of course, Dr. Reed's service can hardly be overestimated or overpraised, but he certainly owed something to a man who for

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nineteen years labored to establish what he believed to be a fact that the mosquito was the transmitting agent of the disease. Of course, it is true that Dr. Finlay's conception of the role of the mosquito was never correct, but he had accomplished something for which even Dr. Kelly has not given him credit in his book, namely, the experimental production of yellow fever by allowing mosquitos, previously fed on yellow fever patients, to bite healthy individuals.

In the estimation of the present writer, any account of yellow fever, or of the development of our knowledge of its transmission by the mosquito, is not complete without including all of the experiments of Dr. Finlay and without mentioning all of his contributions to the literature of medicine on the subject. It is earnestly hoped, however, that although Dr. Kelly's book is defective in this one respect, it will be earnestly read by all physicians and by them recommended to those of their patients who seem still to be skeptical regarding the ability of scientific physicians to render real service in promoting the health of humanity.

Notes and News.

Dr. Guy Martin has located at Central City, Neb.

Dr. C. G. Barns and family have moved to Albion, Neb.

Dr. R. S. Humphrey has moved from Tobias to Burchard, Neb.

Dr. J. F. McNulty has removed from Hastings to Omaha, Neb.

Dr. McKinley, of Humphrey, Neb., has decided to locate in York.

Dr. Lindquist, of Chicago, Ill., has decided to locate in Stanton. Ia.

Dr. Harry Lamb has removed from Platte Center to Humphrey, Neb.

Dr. A. E. Walker, formerly of Union, Neb., is moving back to that place.

Dr. S. O. O'Neill, formerly of Albion, Neb., has located in North Bend, Neb.

Dr. Norton has sold his property in Ravenna and is moving to Aurora, Neb.

Dr. R W. Connell has succeeded Dr. Ralph as city health commissioner of Omaha.

Dr. F. A. Kelly, of Beaver City, Neb., has gone to Wichita, Kan., to take up hospital work there.

S. Warrick, of Hastings, Neb., has gone to New York City to spend some time in special study.

Dr. J. E. Benton, of Central City, Neb., has gone to Chicago, Ill., for six weeks' post-graduate work.

Dr. H. L. Arnold, of Omaha, left June 30 for Europe with the expectation of remaining abroad for a year.

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DR. STURDEVANT has removed from Gordon to Atkinson, Neb. He will open a sanitarium at the latter place.

DR. COPSEY, who has been located temporarily at Central City, with Dr. Logan, has returned to Broken Bow, Neb.

DR. J. E. BENTON, of Central City, Neb., has returned from Chicago, Ill., where he has been pursuing post-graduate studies.

DR. NEELY, of Elmwood, Neb., returned June 15 from his trip to Buffalo, N. Y., where he attended a national medical meeting.

DR. H. L. ARNOLD, of Omaha, has gone to Europe to spend a year in special study of diseases of the eye, ear, nose and throat.

THE midsummer meeting of the Elkhorn Valley Medical Society was held in Norfolk, Neb., Tuesday, July 17, afternoon and evening.

DR. I. N. PICKETT, of Odell, Neb., was a delegate to the Boston meeting of the American Medical Association. He returned June 18.

DR. NELSON MERCER, of Omaha, has returned from Europe where he has been visiting some of the leading hospitals for the last two years.

DR. TAYLOR HARRIS, formerly of Central City, Neb., but now chief surgeon for the Sheridan Coal Company at Dietz, Wyo., was married June 28.

DR. W. L. ALBIN, of Blue Springs, Neb., has been appointed district surgeon of the Kansas and Nebraska division of the Union Pacific railroad.

DRS. M. L. WILSON, WM. WAGGENER, S. A. VAN OSDEL, W. R. BOOSE, and HENDERSON, have recently been appointed county physicians at Falls City, Neb.

DR. GEORGE DOCK, of Ann Arbor, Mich., was elected president of the American Association of Medical Librarians at the meeting in Boston, June 4.

DR. D. F. SMITH, a graduate of the American College of Medicine and Surgery of Chicago, Ill., has moved to Arapahoe, Neb., and will practice medicine there.

DR. CHARLES L. SPAULDING, instructor in orthopedic surgery in the University of Kansas School of Medicine at Kansas City, was killed June 25 by falling down an open elevator shaft.

DR. E. HOEHEN, of Columbus, Neb., died suddenly at Danville, Ill., June 28. Dr. Hoehen was one of the pioneer physicians of this vicinity, having located in Columbus about forty years ago.

DR. JAMES M. GODFREY, of Omaha, Neb., has become associated with Dr. Joseph M. Reeves, of Philadelphia, Pa. Dr. Godfrey is a recent graduate of the Jefferson Medical College of Philadelphia.

THE physicians of Junction City, Neb., are behind an organized movement looking toward the establishment of a new city and county hospital. It is planned to devote a building recently acquired by the county commissioners to the purpose.

DR. W. G. HOUTZ, a resident of Lincoln, Neb., since 1880, died at his home in that city recently. Deceased was born in Lebanon county, Pennsylvania, October 12, 1830, and in 1851 he was graduated from a Philadelphia medical college. He went to Illinois in 1855, settling in La Salle county, where he remained until coming to Lincoln.

DR. JAMES L. GREENE, superintendent of the State Hospital for the Insane at Lincoln, Neb., has resigned to take the position of superintendent of the East Illinois Hospital for the Insane at Kankakee, Ill. The resignation took effect July 16. Dr. J. T. Hay, the former assistant superintendent, has been appointed to take Dr. Greene's place. The institution of which Dr. Greene is the new head is one of the largest of the kind in Illinois, and Dr. Greene was the unanimous choice of the board of control. His residence there will

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be separate from the main institution and the salary paid him is double the Nebraska salary.

DR. JAMES L. GREENE was the guest of honor at a dinner Saturday night at the Lincoln Hotel, Lincoln, Neb. The dinner was one of the most striking tributes of admiration and regard ever accorded to a Nebraska physician. The physicians of the state appreciate perhaps more fully than any others how good a man the State Hospital for the Insane loses by the departure of Dr. Greene for Kankakee, Ill. About thirty physicians, representative of Lincoln and the Nebraska profession, were present at the dinner and each one responded to the toast "Dr. Green—His Work in Nebraska and His Success at Kankakee." Dr. M. H. Garten acted as toastmaster and Dr. A. R. Mitchell and Dr. A. I. McKinnon had charge of the arrangements. The principal speakers, in addition to the above, were Dr. A. S. von Mansfelde, Ashland; Dr. J. C. McDonald, Fremont; Dr. J. P. Lord, Omaha; Dr. Burchard, Falls City; Dr. J. T. Hay, Asylum; and Dr. H. B. Lowry, Lincoln. Dr. Greene responded to the principal speakers in an eloquent tribute to his friends during his life work in Nebraska. The other speakers who followed all voiced more or less perfectly the sentiment which one of the speakers paraphrased to read "Any Governor of Nebraska may make an insane hospital superintendent, but only God can make such a one as Dr. James L. Greene."

Book Reviews.

A DISTINCTION of no mean degree has been conferred upon an American book, the joint authorship of Drs. J. Madison Taylor and William H. Wells. The revised second edition of their treatise on "Diseases of Children," published by P. Blakiston's Son & Co., of Philadelphia, has been translated into Italian by Dr. Mario Flamimi, of the Pediatric Clinic of Rome, with contributions by Professor Concetti and Dr. Valagussa. The translation has proven very popular abroad, and the occasion is one of felicitation, not only to the authors but to American medicine generally, inasmuch as the work was chosen as being especially adapted to clinical teaching in Italy. Few American books have attained such honor. Its success abroad is but a repetition of the favor which it enjoys here.

Original Articles.

COLLATERAL CIRCULATION FOLLOWING LIGATION OF THE FEMORAL ARTERY, WITH REPORT OF A CASE.*

FREDERICK RUSTIN, M. D., OMAHA, NEB.

But few cases of collateral circulation after ligation of the femoral artery have been authentically published. Ligation of this artery is not of rare occurrence, but its subsequent history is, as a matter of course, rather indefinite. The condition which indicates radical methods is, of necessity, serious. If the case is fatal, it is usually so on account of the inability to re-establish collateral circulation, and the subsequent autopsy is of no value, so far as determining the vessels through which this new circulation is estab-

* Read before the Nebraska State Medical Association, Lincoln, Neb., May 1 to 3, 1906.

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lished. On the other hand, if collateral circulation is successfully maintained, the patient usually lives his entire expectancy of life, and probably dies eventually in a place where there is no interest taken in the change of his anatomical structure; or, in other words, after a successful operation, it is difficult for those interested to obtain future records.

The following is a brief history of a case where I successfully ligated the femoral artery for popliteal aneurism, and two years later did a hip-joint amputation for a septic gonorrheal knee, preserving the specimen:

Some four years before I saw the patient, he was shot with a thirty-four caliber bullet in the popliteal region, the ball passing through the leg from within outward. There was no history of profuse hemorrhage or any subsequent infection. The wound healed in about eight or nine days, so that the patient could be up and about with the use of a cane. Active motion of the leg, however, was limited, owing to the pain which was caused by any attempt at bending. This symptom gradually disappeared and in three or four months after the accident he said that he was as well as ever. About a year after the accident he began to have throbbing pains in the popliteal space, and these were particularly aggravated by an excess of exercise. The foot and lower part of the leg would swell occasionally during the day, but the swelling would disappear at night. The patient took different medical and electrical treatment for rheumatism, with negative results. Two years after the accident a small growth was noticed in the popliteal region and a diagnosis of white swelling made, the patient put to bed and kept quiet. The tumor under this treatment made no appreciable change in size. After this the leg was immobilized in plaster cast for a period of four or five months. The patient then becoming discouraged after two failures to obtain satisfactory response to medical treatment, consulted an osteopath, who made a diagnosis of dislocation of the knee and gave him the ordinary rubbing. Three months of this treatment increased the size of the tumor, which at this time, he said, was about the size of a hen's egg. The pain, however, was not so marked as before the rubbing, and he was discharged by the osteopath as cured, with the guarantee that, as the pain had diminished, eventually the swelling would disappear. These statements were not corroborated by his subsequent history, and he consulted me about April 10, 1900. At that time his local condition was as follows:

A prominent swelling was noticed in the popliteal region, extending slightly below and about three inches above the knee-joint, fill-

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ing the entire popliteal space. There was no pulsation to be noticed. Upon inspection, palpation revealed a marked impulse when slight pressure was applied. Pressure over the femoral artery in Scarpa's triangle would diminish and almost hide the popliteal pulsation. Auscultation brought out a very loud to and fro bruit. The clearness of this also was diminished and hidden by pressure over the femoral artery. Measurement showed the right knee to be about three and one-half inches greater in circumference than the left. From the history and physical signs the diagnosis of a popliteal aneurism was believed to be a certainty.

The patient was told the danger of a radical operation and the danger of doing nothing, and finally gave his consent to the operation, which was the ligation of the femoral artery in Scarpa's triangle below the profunda. Operation April 22, 1900. Chloroform narcosis. An incision four inches long was made following the internal border of the sartorius muscle. This muscle was retracted outward and the femoral vessel exposed. Some dissecting was done to determine where the profunda was given off. This was found to be higher than normally, in the case. Two silk ligatures were brought around the femoral artery, about two inches below the profunda and about one-half inch apart. These ligatures were tightly tied, but the artery was not cut between the ligatures, the writer believing there was no occasion to do so. Pulsation of the aneurismal sac entirely disappeared, the wound was closed without drainage, and the leg put up in a posterior trough splint, extending from the hip to the toes; the leg surrounded abundantly with cotton and light bandages to retain the cotton and splint in place. The operation occupied about thirty minutes, the patient was returned to his bed with his leg elevated slightly, and apparently was in good condition, having suffered little from shock. The treatment for the first few days after the operation consisted of hypodermic injection of morphia, sufficient to keep him quiet; also, applications of heat to the leg slightly above the body temperature. Twenty-four hours after the operation the foot was comparatively cool, and there was some swelling and edema of the leg and foot. This condition remained unchanged for about three days. Four days after the operation the swelling was not so pronounced, and the foot and leg showed more bodily heat. Pressure on the nail of the toes showed the first symptoms that gave us hope that the circulation was being re-established. The subsequent history was one of progress, the temperature of the leg gradually became normal, the tumor diminishing in size, and evidence of complete return of circulation below the ligature. The wound healed primarily and

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after about four weeks' confinement the patient was allowed up, and left the hospital June 1, 1900, in fairly good condition, the right knee measuring about one inch more in circumference than the left. The knee action was not good at this time, but there was no evidence of any return of the aneurism. There was a slight thickening and some pain on deep pressure in the popliteal region.

November 1, 1900, the leg had apparently regained its normal condition, and the popliteal space seemed entirely clear; both knees measuring practically the same in circumference. I did not see the patient again until March 4, 1902. He had at that time. what I judged, from the history of the case, to be a gonorrheal knee-joint with the presence of fluid. His constitutional symptoms were those of pain, fever (103°); local conditions were those of infected knee-joint. An aspirating needle obtained a thick purulent fluid. Immediate opening of the knee-joint was advised, but refused by the patient, he being of the belief that his condition was now due to some fault of the previous operation. I was discharged from the case and he fell into the hands of one who would cure him without operating. I was recalled on the case March 16 and found his condition to be alarming. The ligaments of the knee-joint had evidently been destroyed by the pus, which escaping from the joint had burrowed upward. His general appearance was that of one suffering systemic infection. An immediate operation was performed hastily, opening the knee-joint in several places and inserting tubing for continual irrigation and drainage. This drainage, however, in twenty-four hours was shown not to be sufficient, and as the pain was so great he gave his consent for amputation. The pus had burrowed so high that it was thought best to do a hip-joint operation to obtain the desired integrity of the flaps and better drainage. The patient recovered from the operation and left the hospital in fairly good condition five weeks after the operation. I last saw him in February, 1906, and his general condition then was excellent. The amputated leg was preserved and the artery injected. Dissection showed the following:

The main line of circulation, of course, was carried on through the anastomosis of the profunda artery. This vessel was much enlarged in size, as compared with its original size, which was ascertained by dissection as above referred to, in the original operation. The perforating arteries of the profunda were large and tortuous, and anastomosed freely with the ascending branches of the popliteal artery. The external circumflex artery anastomosed freely with the superior articular branch of the popliteal artery. In fact, the entire blood supply of the anterior portion of the thigh and knee was fur-

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nished by this anastomosis. There were few anastomoses between the external circumflex branch of the profunda, with the vessels in the gluteal region. Just what these vessels were the dissection could not show.

It was very noticeable, however, at the time of operation, that there were many small vessels encountered that are not usually found in the ordinary hip-joint amputation. The original aneurismal sac was obliterated, and its only remnant was a chord-like mass, about four inches long and one-eighth of an inch in diameter.

DISCUSSION.

DR. HUNGATE, Weeping Water: I rise to compliment the essayist on his paper. He certainly has done something and he has observed something. He tells us in a very succinct manner what he has seen in this case, and I think he has contributed something of great value to the profession.

DR. LORD, Omaha: I have never tied the femoral artery but in one case and that was similar to the case reported by Dr. Rustin; in that case also venereal disease was the cause of the man's undoing. A colored man of 36 years had been shot in the thigh, which was the probable cause of the aneurism,—at least the difficulty arose a few months thereafter. The man was a stranger to me, and seemed somewhat reticent and peculiar. He was a man of more than usual distinction as a negro, as he was the foreman of a large gang of men, indeed a man of some importance. It was therefore thought that his peculiar mental condition might be an individual characteristic. Ligation of the femoral was advised and accepted, and it was tied in a very similar way to that of the doctor's. There was no difficulty in the establishment of the collateral circulation, and I may say there was no difficulty in keeping his foot warm. The result seemed to be everything that was desired, but before the man was ready to discharge he became very ill. Something was clearly the matter with the man and his history was gone into, and upon calling in our friend Dr. Coulter, the diagnosis of general paresis of the insane was confirmed, which added another paragraph to his syphilitic history.

NEURALGIA.*

F. E. COULTER, M. D., OMAHA, NEB.

Neuralgia, or "nerve pain" as the word signifies, is one of the most common of nervous diseases. This affection is so common that often but little attention is paid to it by the physician, but there is no disease to which the human body is heir that will cause more intense suffering and real discomfort than neuralgia. In support of the foregoing statement one need only mention tic douloureaux or that other affection implicating the largest nerve trunk in the body, sciatica. Some one may say these are not true examples of neuralgia. This we may be willing to admit in some instances, perhaps, but not in all, because pathological changes are not found in all cases.

The term "neuralgia" is generally reserved by most writers to describe those cases of pain found along the course of a sensory

* Read before the Nebraska State Medical Association, Lincoln, Neb., May 1 to 3, 1906.

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nerve trunk, in which no pathological changes can be demonstrated by any method at our command. In pathological investigation much progress has been made in the past twenty-five years, and many changes in the different neuron systems are now apparent that were obscure at that time, but there remains yet much to be accomplished before perfection is reached. Pathology must be broadened and refined in many respects before we can say it is anything like complete. However, before pathology can be much broadened or refined anatomy and physiology will need to be advanced somewhat. Along these identical lines recently, Head has done some most remarkable work and we dare say within the next few years much additional advance will be made. When an observer is filled with such enthusiasm for his subject that he will submit to an operation whereby his own radial and ext. cutaneous nerves are severed and the reparative process is carefully noted and recorded for days, weeks and months for over a period of two years, it means much earnest effort, and not only has this observer accomplished all just mentioned, but he and his especially trained assistants have noted and recorded hundreds of other clinical cases bearing upon the same subject, the sensory side of the nervous system, taking up in detail the subject of the different kinds of sensations, their relation one to another in health, disease and injury. This is an important step forward in neurological study and no doubt will bring forth fruit at no very distant date.

As an abstract statement one can say there never exists a disease that is purely "functional," and when our methods of investigation are sufficiently refined this fact no doubt will be demonstrated, but as a sort of "scapegoat" for our present ignorance the word "functional" serves us well and we might define the term "neuralgia" as a functional pain in a sensory nerve trunk. It is our purpose then to limit the subject of this article, irrespective of the stand taken by certain authors, to pains found in sensory nerve trunks not marked by pathological changes. When such changes do occur one is not dealing strictly with a neuralgia in the general acceptation of the term, but a neuritis or some degenerative process. It may be a very difficult matter to say at just what point a neuralgia may cease to be a neuralgia and become a neuritis or degeneration, but that there exists such a point in no small number of cases we believe is abundantly proven by clinical experience, and this fact is of much practical importance when the question of treatment is to be considered. There are many different forms of nerve pain, but those interesting us most at this time may be divided into three classes. First may be mentioned a certain class of cases of nerve

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pain that have been in existence for an indefinite period without producing pathological changes capable of demonstration, such conditions being explained by Starr and others as due to nutritional alterations. A second class of cases, after undergoing a period of considerable duration of nerve pain, are found later presenting pathological alterations, and the case having thus passed out of the class of neuralgia proper becomes one of neuritis or degeneration. A third class of cases of nerve pain are those that at the very beginning, or very soon thereafter, demonstrate pathological alterations, and in these we are dealing with a neuritis or degeneration and not a true neuralgia. It is with the first and second class of cases referred to we have to do especially at this time and not the third. Just at this point a most interesting question presents itself for solution. It is this: In what particular part of the neuron is the nerve pain located, or just at what point does it arise? Is it in the distal terminal apparatus of the sensory nerve? Is it in the nerve trunk, the axon or dendrite, or is it to be found in the central cell? We refer the pain to a particular location, but that does not prove by any means that that is the point at which it arises. Years ago we were taught that neuralgia was a "cry for more good healthy blood"; but who is doing the crying — is it the nerve cell, the axon, the dendrite, or the terminal arrangement, or all? Vulpian, Anstie, Allbut and Vaulair support the central theory, that is, that the cells are the seat of the disturbance, while Gowers says, "Not only it is probable that peripheral disturbance takes part in the pathogenesis of central neuralgia, but it is certain that central disturbance is concerned in some neuralgias of peripheral origin." It would seem that this statement were quite near the truth, when we consider the very irritable and fiery nature of some neuralgias—a breath of air, the slightest movement or indeed when in a condition of seemingly perfect rest, the pain impulse passes with lightning rapidity along the nerve trunk. No doubt the condition of the nutritional supply of the neuron also is a factor to be reckoned with. However, let us investigate the clinical side of the picture for a little and note some of the causative factors.

Etiology.—All authors agree that neuralgia is essentially a disease of adult life. The first and second decades are usually free; especially is this true of the first, children suffering much less than adults. It is not frequently present in old age, yet should it appear at this period of life, it is usually severe and does not respond readily to treatment. As to the part played by the different sexes in this disease there is some difference of opinion. Gowers (*a*): "Women are more prone to neuralgia than men, but the degree of their

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liability has often been overestimated and the excess of females among the sufferers disappears in the second half of life," and with this statement Starr (*b*) agrees, while on the other hand Bernhardt, as quoted by Oppenheim (*c*), takes exactly the opposite view and in this he is supported by (*d*) Perves Stewart. All writers seem to agree, however, as Anstie has pointed out, that the neurotic temperament is a very important factor in the etiology. All debilitating causes, anemia, cachexia, arteriosclerosis, pregnancy and the puerperium, are splendid foundations upon which to build a neuralgia, as are also the infectious diseases, malaria, typhoid, influenza, variola, etc. Various poisonous substances of a mineral nature, such as lead, mercury, copper, and arsenic, are frequent factors, and other poisons not mineral, as alcohol and nicotine, are frequently observed. Rheumatism, gout and diabetes mellitus must not be forgotten, yet in many of these factors just enumerated one must be certain he is not dealing with a neuritis rather than a neuralgia. Exposure to cold is counted by some authors as an exciting factor in at least 30 per cent. of all cases. It is a question if syphilis is ever a cause of a true neuralgia, in the sense in which the term is used in the present paper; Fournier, Obalinski and Gowers agreeing that it is probably a "tabetic neuralgia" instead, or in other words, a form of degeneration in certain sensory nerve trunks.

Emotional conditions, and severe exertion, eye-strain and irritative points at remote locations, such as defective teeth, tumors, inflammation, cicatrices, aneurisms, pressures, all come in for a share in the causation of this disease.

The distribution of neuralgia is very great, for any nerve trunk in the body containing sensory fibers may be involved, and because of this fact there has arisen a multitude of names describing various forms of neuralgia corresponding in the main to the anatomical description of the nerve trunk involved.

Symptoms.—From what has already been said you will conclude that pain is the leading symptom of neuralgia. This is quite true, but as there are many kinds of pain, how can we describe this particular one so that we may distinguish it from others?

First, we may say it is always to be found in distribution corresponding to a nerve trunk containing sensory fibers; this alone, in a manner, serves to limit it from many other pains. Next, this pain is seldom one of a steady intensity; it is usually intermittent, but if continuous has distinct periods of exacerbation; it is paroxysmal. A series of these short pains constitute a paroxysm and a series of paroxysms constitute an attack. Attacks vary much as to intervals of recurrence, excepting those of a malarial origin which

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usually return at regular stated intervals. The sharp paroxysm of pain may produce muscular spasms in the region involved.

Trophic alterations may be present in the skin or hair in the region of a neuralgia. If the latter be involved, the pigment is frequently lost, leaving the hair entirely white. In range the pain varies greatly, from a low, boring, grumbling ache with distinct periods of increase and remission to a sharp, stabbing, lightning pain present only for a few seconds, but very severe as long as it lasts. It may be burning, gnawing, or throbbing, but not usually so frequent as the sharp, shooting kind just mentioned. It also is distinctive in that it frequently travels along the course of the nerve involved, either from the periphery inward or from within outward, the former being the most frequent. If pressure be made over the nerve trunk involved, it is usually followed by a sense of relief rather than distress. In other cases, fortunatey rare, there is a definite hyperesthesia present and the lightest touch results in bringing on the severe paroxysmal pain. The pain is seldom referred to as being in the integument, it is deeper seated usually. Often there are special points along the course of a nerve where the pain seems to be most pronounced, or where it seems to start; usually this is at a location where the nerve passes from one structure to another, thus changing the surrounding tissue. As a rule, neuralgia is not bilateral, but if it should prove to be so in a given case, it would be well to look for the cause in a blood condition.

Diagnosis.—One of the principal points of clinical significance is to determine when the pain in a nerve trunk ceases to be functional, so called, and becomes organic; or, in other words, when the case ceases to be one of neuralgia and becomes one of neuritis or one of neuritic degeneration, and this point may be very difficult to determine in a given case. The following rules will be found of service:

(*a.*) The pain of a neuralgia is more liable to be paroxysmal than that of a neuritis; in the latter it is more continuous and steady.

(*b.*) Pressure along the course of a nerve trunk in neuralgia is more likely to give temporary relief than in neuritis.

(*c.*) Redness and tenderness and swelling indicate a neuritis rather than a neuralgia.

(*d.*) Anesthesia and analgesia are not so often found in neuralgia as neuritis; especially in chronic cases is this true.

(*e.*) Psychic causes may inititate a paroxysm of neuralgia, but will not initiate a neuritis.

(*f.*) Atrophy is not so frequently found following neuralgia as neuritis.

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(*g.*) Electrical alterations mean a neuritis and not a neuralgia.

Upon the subject of differential diagnosis from other nerve pain much could be said, but from the points already mentioned it scarce seems necessary to take your time to add more.

Upon the important question of treatment but little can be said at this time, excepting in a general way, for each individual case of neuralgia, if successfully treated, must be made a subject of special study; the location, nature, and extent of the pain, as well as circumstances pertaining to the surroundings of the individual, must all be taken into account. Two main points are never to be lost sight of in all cases: First, relieve the pain, and second, remove the cause. Rest, general hygienic, medicinal and surgical measures may all be used in turn or together to bring about these results. Electricity, massage, and vibration, each are applicable in selected cases and may be depended upon to give relief if intelligently applied, but no subject with which we are acquainted will afford the practioner a greater field for good judgment and a careful selection and study of his cases, together with suitable measures for their relief, than the successful treatment of neuralgia.

INTRAOCULAR FOREIGN BODIES.*

WARWICK M. COWGILL, M. D., LINCOLN, NEB.

"In the case of a foreign body within the eyeball, remove the foreign body or remove the eye," is a statement so near the truth that it must be accepted as a rule. The continuous presence of insoluble extraneous matter within an eye will, sooner or later, cause the destruction of the eye retaining it. More than this, it is from these eyes with retained foreign bodies that the danger from sympathetic ophthalmitis is most imminent. Hence the subject appeals to us for most serious consideration. The acumen necessary for a correct diagnosis in these cases ranges from that requiring only simple observation, to inability with the most cunning devices used by the most skilled. The history of the accident may give most important data. There is usually a penetrating wound, or scar showing where one had been, in the anterior segment of the eyeball. But this is not without exception, as will be shown later in the report of a case. Then the penetrating wound only shows that the eye was struck, and sheds little or no light as to whether the foreign body entered the eyeball or simply wounded it in its flight. If the foreign body rests in the anterior chamber, or is entangled or transfixed in the iris, it can usually be seen; should it rest in the

*Read before the Nebraska State Medical Association, Lincoln, Neb., May 1 to 3, 1906.

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lens, if presented before that body becomes opaque, it can be seen by focal illumination or by transmitted light with the ophthalmoscope; should the foreign body lie in the apparent portion of the vitreous chamber, and the media are clear, it may be seen with the ophthalmoscope, provided it is not covered with exudates. In cases where the media are not clear, and this is generally the rule, for in very recent cases we usually have hemorrhage, then cloudiness, or opacity of the lens, then it is impossible to determine by ordinary means whether the eye contains a foreign body or not. Then our only possible recourse is to the sideroscope, or the X-ray. In this case, should the foreign body be of sufficient size and suitable material, its presence and location may be determined.

The prognosis will be largely modified by the extent of the traumatism; the location of the wound, that is, the parts or part of the eyeball injured; whether the foreign body is septic or aseptic or a chemical irritant—whether vegetable, mineral or metallic. If metallic, is it magnetizable or not? The traumatism may be so great that any attempt to save the eye would be futile. Then immediate enucleation or evisceration would be the proper procedure. Where the cornea alone is wounded, or the cornea and iris, with the foreign body resting in the anterior chamber, the prognosis would be most favorable. Where the cornea is penetrated and the foreign body rests in the lens, the prognosis would be more grave, but still favorable. Wounds implicating the ciliary zone are the most dangerous.

The role played by the vegetable substances, as an isolated foreign body in the eye, is not very great, since the lightness of the substance prevents penetration, except in the case of splinters so large that they would project beyond the walls of an eyeball. Another exception is the penetration of the eye by thorns or briars. These latter wounds are usually in the anterior segment of the eyeball and it sometimes occurs that the tip of the thorn or brier is broken off and remains in the eye as a foreign body. The following case will illustrate such an accident:

C. S.—Three weeks before being brought to me was struck near the center of right cornea with a briar, which penetrated into the anterior chamber, breaking off, leaving the point about 2 mm. in length clinging loosely to the posterior surface of the cornea. The eye was injected, but no iritis or injury to the lens. Did a paracentesis and removed the foreign body with forceps. Uninterrupted recovery. Discharged on seventh day with normal eye.

Of mineral substances, the more ordinary accidents would include stone, sand, paving cement, glass or coal. Should the foreign body

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be of one of these substances and lie in the anterior chamber not obscured by hemorrhage, or in the lens, provided there is no infection, the eye may be saved, but if the foreign body is in the vitreous chamber, as they are non-magnetizable, the prognosis would be so grave as to be almost hopeless. The following case will illustrate not an unusual result where particles of stone or sand are retained in the eye:

Hope O., white, f., aged 9 years. Struck in the right eye by stone or piece of cement, resulting in a penetrating wound of the cornea that extended entirely across it and into the sclera at either end. The child was brought to me the day following the accident. The eye had not been cleaned but only "tied up." I cleaned the eye with a bichloride solution, 1 to 10,000, removed several particles of foreign substance from between the edges of the cornea, and anterior chamber which was obscured by hemorrhage. Under atropin solution and a protecting bandage the corneal wound healed. However, irido-cyclitis developed and continued. Result, phthisis bulbi; V = nil. Enucleation. On examination of the eyeball I found it contained some particles of sand and several eyelashes.

Of the non-magnetizable metals that most commonly play the role of intraocular foreign bodies are particles of lead, in the shape of gunshot and copper. The following case of gunshot wound of the eye posseses such an unusual feature that I will report it:

Mrs. J. T. H., aged 34. Some days before I saw the patient she was wounded by a load of small shot fired from the fronto-left of her. Quite a number of shot entered the left shoulder and left side of neck and face. There was no shot-wound of the eyeball, but one through the left upper lid near the inner canthus. But just at the lower portion of the anterior chamber a shot presented through the iris. The eye was very much inflamed; great chemosis; intense irido-cyclitis; very tender on palpation; fundus clouded by hemorrhage; V = nil. I attempted to remove the shot but failed, as it eluded the forceps' grasp. Enucleated. I found the shot had entered the eye from behind near the optic nerve entrance, having been deflected thence by the orbital wall.

When the copper percussion gun-cap was in general use accidents to the eye from this source were not uncommon. When a copper fragment penetrates the vitreous chamber the eye is usually lost. The two following cases will illustrate the two phases most commonly met when this metal is the offending body. In both cases there was a large fragment of copper gun-cap in the vitreous. In one the accident had been recent and the foreign body could be plainly seen. An unsuccessful attempt was made to remove it

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through a scleral opening. In the second case three weeks had elapsed since the accident. The ball was very soft; no vision; and sympathetic irritation present. Both eyes were enucleated.

Foreign bodies composed of iron, steel or steel alloys are of most interest, as they are magnetizable and the possibility of their removal from any part of the eye is more certain. In the days of the hand magnet alone with the foreign body in the vitreous chamber, the usual rules of procedure were not complicated. Utilize the original wound-opening should it be large enough and patent. If there was a traumatic cataract to be evacuated, do this and use the corneal incision for the introduction of the magnet point. These not being practical, make a scleral opening back of the ciliary zone. The prime object is to save the eye. First, to save it so that it will retain a useful amount of vision; secondly, to save the eye that its integrity as an eyeball will be preserved; the latter being far from what we may desire, but to most patients a highly gratifying result at least. To this end should every procedure with the magnet be cognizant and subservient. It is not enough to simply extract the bit of iron or steel, but to so extract it that the traumatism consequent will add the minimum to what already exists.

With the advent of the giant magnet has come many new problems. Shall the bit of iron or steel be coaxed around the lens into the anterior chamber or would it be wisest to remove it through a scleral incision? Should the giant magnet be used as a means of diagnosis? Of course, we refer only to foreign bodies that are in the vitreous chamber. The latest words on magnet operations are papers on this subject by Hirschberg, Haab and Snell in the Ophthalmoscope for February, 1905. I quote from an abstract made from these papers by Ellett in the Ophthalmic Record for February, 1906:

"In fresh cases Hirschberg uses a hand magnet, in old cases the giant. Haab prefers the giant for all, but uses the hand at times when the splinter is in the anterior chamber. On two points all are perfectly agreed: (1) that a splinter left in the eye invariably causes the loss of the eye sooner or later, and (2) while a fresh scleral wound made by the splinter may be used for its extraction it is bad policy to make a scleral wound for the purpose, as the underlying coats are injured and permanent damage results. The best plan is to draw the splinter forward around the lens into the anterior chamber and receive it through a corneal incision. Haab is the most explicit on this point, Snell the least. In fact the latter confesses to enlarging old scleral wounds and making new ones, while stating the objection to it as above. He (Snell) introduces

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the small magnet into the vitreous chamber and tries to bring it in contact with the splinter. Haab seeks to extract all foreign bodies by way of the anterior chamber."

I wish to report one case where a piece of iron was in the anterior chamber, and three cases where the iron or steel was extracted from the vitreous with a hand magnet.

Geo. A. C., aged 38. Two days before coming to me was struck in the left eye by a piece of iron while driving down an iron hoop on a barrel with a hammer. The particle of iron, which proved to be 2 mm. long by ½ mm. in thickness, pierced the cornea and transfixed the iris near its pupillary border on temporal side. Under cocaine anesthesia I did a paracentesis and removed the iron with forceps. Recovery uneventful. Discharged on ninth day with V = 15-20 with correcting lens.

The three magnet cases are as follows:

CASE I.—James T. (col.), m., aged 30. Two days before I saw this patient he was struck in the left eye by a piece of steel. There was a small penetrating wound of the cornea a little to the nasal side of the center, with traumatic cataract. Eye injected; T + 2; V = p. l. Operated under chloroform narcosis. Made upward section of cornea; did an iridectomy and evacuated the broken down lens matter. Then introduced the magnet through the corneal section into vitreous chamber and extracted a piece of metal 3x4 mm. that weighed one grain. Eye was dressed as after a cataract extraction. The wound healed nicely. After three weeks tension became subnormal; eye injected and tender; V = nil. I then enucleated. On opening the eyeball found total detachment of retina with a purulent sanguineous fluid in it. There has been infection either carried into the eye by the foreign body or done at time of operation.

CASE II.—Mr. J. H. P., white, aged 26; machinist. Nine days before coming to me on June 26 he had been struck in the right eye by a piece of iron. There was a penetrating wound of the cornea in its outer quadrant, iris and lens with slight localized opacity of outer edge of lens. Eye slightly inflamed, not tender; fundus could be seen quite clearly, no foreign body could be made out; V = f. at four feet. Patient thought the eye was better than it was a few days past. July 19, V = f. at four feet, best outward and downward, eye irritable and T — 1. July 21, did magnet operation through scleral incision betwen external and lower recti. Removed a scale of iron 4x3x1 mm., weight one grain. July 21, wound healed; irritation almost disappeared; fundus quite clear, no detachment of retina; Tn.: V = 3-70. August 21, one month after operation, V. R. E. = 15-200. Two years after operation the eye looked quite nat-

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ural—Tn., but the lens had become quite opaque; V = p. l. A cataract extraction would no doubt have restored this eye to useful vision.

CASE III.—Mr. M. B., white, aged 44; steamboat carpenter. Three days before I saw him he was struck in the left eye by a flying piece of steel. There was a wound of the sclera, by this time quite healed, between the cornea and inner canthus. Iris muddy; fundus totally dark from hemorrhage into the vitreous. V = p. l. I advised a magnet operation to which the patient consented two days later. Through a scleral incision, between exterior and lower recti, I withdrew a piece of steel 4x3x1 mm. The operation was concluded by bringing the conjunctiva together over the wound by single suture, followed by the instillation of atropin solution and light bandage. The recovery of the eye following the operation was uneventful. The blood in the vitreous was slowly absorbed. One year and four months after, the appearance of this eye was normal. V = 15-20 + with no correcting lens. Could read Jaeger 1 W. + 1 = + .50 a 180°. Fundus normal. No scotoma. In this case the anterior segment of the eye was not wounded either by the foreign body or at time of operation. The result was ideal.

To sum up the results in the cases reported:

In three cases the foreign body was in the anterior chamber; of these one was sand and eyelashes, eye enucleated; one point of briar, result good; one of iron, result good.

Three cases of non-magnetizable metal in the vitreous chamber, one lead and two copper, all enucleated.

Three cases of iron or steel in the vitreous and removed with magnet, one case lost through infection and two cases result good.

SURGICAL FEVER.*

JULIUS M. M'LEOD, M. D., LINCOLN, NEB.

Fever: the condition all but universal; the symptom pregnant with greatest possibility of danger and fraught with greatest alarm; calling for most exacting judgment and acute discrimination; and attended with the gravest complications and dangers to life. Its early recognition and measures promptly and energetically instituted to remove its cause have placed the science of medicine on the high and exalted pinnacle of achievement which it occupies before the world to-day—more wonderful than all the golden fancies of all the dreamers and visionaries of all the ages.

What we here say in laudatory words little matters and will

*Read before the Nebraska State Medical Association, Lincoln, Neb., May 1 to 3, 1906.

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soon be forgotten; but what they did—the immortal Pasteur, Jenner, Koch and other equally brilliant and lesser lights who devoted their lives and energies to the welfare of humanity—will live forever and humanity already rises up and calls them blessed.

But these were only pioneers; they have blazed the trail and beckoned you and I to follow in the direction which they have gone, and to carry forward the work which they instituted.

We begin where they ended. Duty demands our own self-sacrifice no less than theirs. If we cannot each of us be experimenters and discoverers on a large scale, we can apply the means at our disposal to a common end: the alleviation of suffering and the conservation of life and thus add to the sum total of human happiness for which rich and poor alike all strive.

The writer at the outset disclaims any pretense of originality for the substance of this paper. He has no new ideas to bring before this society, no personal opinions to exploit. He only assumes to present very briefly certain accepted facts from authoritative sources in this form and manner, hoping that their recital will emphasize the importance of promptly recognizing the septic fevers, as early recognition might avert a threatened fatality.

Fever itself, meaning an elevation of temperature, is the separate manifestation of a complex condition characterized by many symptoms and various disturbances in the functions of the organs of the body, due to a common cause. McLagan says the essential phenomena of fever are: 1st, wasting of nitrogenous tissue; 2d, increased consumption of water; 3d, increased elimination of urea; 4th, increased rapidity of the circulation; 5th, preternatural heat.

The heat of the body is caused and maintained by the oxidation of food and of cellular elements in the blood and tissues; it is distributed by the blood through the body and is mainly dissipated through the skin and lungs. The amount of heat will therefore depend on production, distribution, and dissipation. Heat production occurs in every tissue and organ of the body, and the amount is in proportion to the functional activity of that organ or tissue. Thus, the greatest temperature is found in the blood after having passed through the liver.

The principal heat-producing center is assumed to be in the medulla, but subsidiary centers exist in the cord and larger ganglia influencing a region or regions, only.

This heat-producing center seems to preside over the vasomotor system of nerves supplied to the arterioles, by which distribution of blood is mainly controlled. This thermotaxic center implies

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thermogenic nerves, or those which control heat production; and thermolytic nerves, or those which control heat dissipation. This center, acted upon by certain agents directly, or through the fibres of the nerves, manifest itself by elevation of temperature; and it is very probable that, under some circumstances, when certain toxic substances gain access to the blood, that both thermogenesis and thermolysis are at fault, in that thermotaxic power and control over one or both is partially lost. This theory is a very plausible explanation of subnormal temperature as well as of pyrexia.

Elevation of temperature may be caused by overheating or by severe muscular exertion; but exists for a short period only and then rapidly disappears.

Another source of pyrogenous manifestation is dissolution of tissue and the formation of exudates. The exudates thrown out between and around the ends of broken bones and blood clots during the process of repair, containing some substance whose absorption causes fever. The chemistry or even the identity of this body is still unknown.

Brieger observed the constancy of fever with fibrin formation, and assumed that the cause of both was a ferment which caused the separation of the liquor sanguinis into fibrin and serum. Bergman says that this fever is caused by the presence of the fibrin ferment in the blood. Angerer and Edleburg demonstrated that this fever occurs after transfusion with blood containing fibrin ferment. This is the so-called aseptic or post-operative fever.

Bacteria of fermentation may gain access to a wound and absorption of their toxic products be followed by a sharp rise of temperature. This is the so-called fermentation fever, and rapidly subsides as soon as free drainage occurs.

Suppurative fever is caused by infection of a wound by pyogenic micro-organisms, which are by far the commonest of all the causes of surgical fever. They invade and liquefy the cellular fibrinous elements of exudates and embryonic or granulation tissue, peptonizing them and converting them into pus. Their presence in tissue produces inflammation; inflammation causes exudation, and the exudate is fertile soil for the growth and multiplication of pus germs.

The malignant or septic surgical fevers are: Sapremia, or septic intoxication; septicemia, or septic infection; and pyemia.

Duncan devised the term sapremia to apply to a condition caused by the absorption of the products of putrefaction. This putrefaction is caused by saprophytic bacteria, some of them having gasogenic properties, and all of them invading dead or dying tissue

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only, when exposed to the air. They are present in coagulation necrosis, and as a secondary infection in tissue destroyed by other bacteria. They never invade living tissue, or if they get there, are rapidly destroyed. These saprophytes generate a toxin which is a crystallizable putrefactive alkaloid, and is known as a ptomaine. The condition produced by this bacterial alkaloid is comparable to the effect produced by the injection of repeated doses of a vegetable alkaloid, the symptoms depending on the amount injected or absorbed.

Frequently there is also absorption of pyogenic toxins at the same time. Tetanin, sepsin, typhotoxin, spasmotoxin, putrescin, are examples of ptomaines.

Sapremia always presupposes a large absorbing surface with poor drainage. It will not occur after granulation is established, except under pressure. The absorbing surface must be a cavity containing dead tissue; a blood clot in a wound or about the fragments of a compound fracture; it may be a blood clot or placental tissue in the uterus; or devitalized tissue from heat, cold, chemicals, or traumatism. The dead tissue must be infected with the bacteria of putrefaction, and sufficient time must have elapsed for the formation of a toxic dose of the ptomaines to manifest symptoms of intoxication. This process of fermentation is always attended by the formation of gases emitting a putrid odor, which is characteristic of the disease.

Evacuation of the cavity and thorough drainage will stop further absorption.

Septicemia, or septic infection, is that condition in which not only toxins but living micro-organisms are found in the blood, multiply there, and are capable of cultivation outside the body. Those diseases such as anthrax, glanders, etc., which are not typically pyogenic in character, are not included. Septicemia, need not therefore necessarily be associated with putrefaction. Usually both staphylococci and streptococci are present, but no one special causative bacterium has been isolated. One drop of infected blood will reproduce the disease. So rapidly do the bacteria multiply, that death has resulted in twenty-four hours after their first invasion.

Cohn says: If segmentation of one cell and its growth to maturity is accomplished in one hour (and it really requires much less time, the cholera bacillus dividing in twenty minutes), a single cell in a single day, if conditions are ideal, will have 16,000,000 descendants.

While the disease is a progressive infection, it should be remembered that the amount of infection may be so small or the virulence

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so attenuated that the bacteria and their products may be destroyed or neutralized by phagocytes or by certain chemical bodies—sozins, alexins and antitoxins; or, after entering the blood, they may be carried to distant parts of the body, where they may become locally active and cause pyemia; or, finally, they may be excreted in a living state by the glandular excretory organs. They enter the blood directly through the lymphatics, or indirectly by permeating the vessel wall. Under some circumstances, as when the vitality of tissue has been greatly lowered by traumatism, or when certain structures are invaded, such as the peritoneum, a fatal result may ensue before the histological changes necessary to the formation of pus can occur.

Thus, we may have a fatal septicemia without suppuration—we assume in such cases the presence of a soluble and rapidly diffusible ptomaine, which destroys life by quickly overwhelming the vital powers.

Pyemia no longer means, as its name implies, pus in the blood but a form of blood-poisoning by pyogenic bacteria in which metastatic abscesses are formed in distant parts of the body through the medium of infected emboli. A thrombus is formed in a vein as a result of contiguous infective inflammation. The pyogenic bacteria permeate the vessel wall and infect the thrombus, which they soften and disintegrate. Minute pieces are detached and carried by the blood-current into the general circulation, each embolus carrying with it large numbers of pus cocci which form a secondary abscess at the point of lodgment.

Senn says: The prevention of suppuration in a wound furnishes absolute protection against pyemia.

The typical pathological condition in sapremia is the presence of ptomaines in the blood, and the absence of living bacteria.

The typical pathological condition in septicemia is the presence of living, multiplying micro-organisms in the blood and tissues.

The typical pathological condition in pyemia is the formation of multiple abscesses.

DISCUSSION.

DR. J. B. HUNGATE, Weeping Water: It seems to me that some gentleman should compliment the reader of this paper. "Surgical Fever" is a subject that is very interesting and important. But it seems to me that I would rather discuss this paper adversely, and to let the opportunity go by without a word, would make me feel as if I were neglecting my duty. Without an exception there is not an idea in this paper that sounds new. It sounds strangely familiar; it seems to me that these things are all matters of record in the various surgical pathologies. If there were a new idea brought out in the paper, I failed to discover it and I think that if the reader had made some original observations on surgical fever and had

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noted something that had not heretofore been known and brought it before this society as a message he could have then been complimented. But I failed to discover anything of this kind, and wish to criticise the author for plagiarism.

DR. MANSFELDE: In regard to the criticism just made upon this paper, it is true that the writer of the paper has not brought out any new discovery or ideas as far as that part is concerned, but, how many gentlemen, members of the profession, are present, who could have gotten up here and given us a distinct and clear definition of the difference between sapremia, pyemia and septicemia. How many, before this paper was read, could have conveyed a clear conception of those three distinct conditions of the body? The difference between one or the other of these conditions has caused trouble to more men than you dream of, and often it meant life or death to the patient. If ever I have seen anything that has been baneful and sorrowful, it is to visit the patients of physicians and find that they have given remedies plentiful and very legitimate and yet have not made the simplest bit of distinction between these affections.

DR. WILSON, Table Rock: Dr. Mansfelde has covered the ground much as I intended to do. I think that if at these meetings we have nothing except the new, we would be compelled to have comparatively little. The writer, as Dr. Mansfelde has stated, has brought in a very concise manner the sum total of the knowledge of those subjects and I congratulate the gentleman on his paper. I think it is a good one and worthy of the consideration of this association. It may be well also to criticise a paper even adversely rather than to let it pass without any notice, but it seems to me the criticism was a little harsh from that point of view. There is so little that is really new that if everything but the new is barred and nothing that might be found in the books allowed to be brought in, then we might as well quit having these meetings as there would be little to listen to.

DR. MCLEOD (closing discussion): I have only to say that I congratulate the gentleman who entered the criticism upon his knowledge of the facts I have attempted to bring out. I will admit there is nothing new in my paper, but I warned you of this when I commenced to read. I searched for weeks through all the literature at my disposal for what I have set forth in my paper, and I endeavored to bring out what might be of interest to every member. There are not many men who carry all these points in their minds, even if they pursue that line of study constantly. I will not believe that the practitioner is bound to know less than the surgeon, because the general practitioners meet with these cases and he ought to inform himself to the best of his ability, and this he cannot do well in the time at his disposal. Therefore, I have tried to present the latest main facts in the condensed and concise manner which is found in my paper, not for the man already familiar with its contents, but for the average physician too busy to search volumnious literature for the substance of things.

Rocky Mountain Spotted Fever.—Harry N. Mayo, Salt Lake City (Journal A. M. A., July 7), describes the etiology, morbid anatomy, and symptoms of the disease known as Rocky Mountain or spotted fever. He states that the anatomic changes are those incident to purpura hemorrhagica. At first the spots resemble petechiæ, later they increase in size and extend over the entire body. The patient first complains of lassitude and shows an elevation of temperature to about 100 or 101. As the spots appear the temperature rises and there is headache, general malaise, loss of appetite, constipation, and coryza. The nervous symptoms are those usually accompanying febrile diseases. Mayo states that the disease is typical and could hardly be mistaken for anything else. The treatment, he says, must be in accord with the symptoms presented.

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Nebraska State Medical Association.

Report of Committee on President's Address.

Your committee on public policy and legislation, to whom the address of retiring president, Dr. A. F. Jonas, was referred for consideration, begs leave to report:

That we cannot urge too strongly upon the members of the profession of medicine, and especially the younger members thereof, the high ideals so strongly espoused in this address.

Pardon must be extended to the specialist in surgery when he names asepsis and antisepsis as the corner-stones of modern medicine and surgery. A like leniency must be shown when he avers: "The genius of bygone days, who could always at a glance know the exact condition and know in an instant any affliction which confronted him, who could with his magic touch determine to a fraction of a degree the amount of fever present, has almost passed away into an oblivion where he rightfully belongs."

Co-operation is all right in diagnosis, but is not always, nay, not very often available; hence, improved by corrected educational methods, he had better not be entirely wiped from the face of the earth. He is as sorely needed to-day as he was of yore, when he built the great monuments to diagnostic skill which are even now the bulwark of successful practice.

We strongly subscribe to the need of business methods on the part of our profession, being fully convinced of the value of dollars, honestly earned for the provision of means to keep body and soul together. Yet, to the glory of our profession it may be safely asserted that there are many physicians so completely wrapped up in the scientific side of their calling that they lose sight entirely of the commercial side of our vocation—and we have faith, and, we believe, our honored president in his final statements concedes this, that to him who loses himself in the realm of medical science all things will come sooner or later.

It seems a pity to us that such able and lengthy comments as the address contains should seem necessary in condemning the reprehensible practices of graft in the relations of general practitioners and specialists to their patients. Fortunately these comments, however true they are, do not apply to the membership of the Nebraska State Medical Association, which body has declared the division of fees between consultant and medical attendant dishonorable and the participants thereto subject to expulsion from the association. If such dishonest practices still exist, they are not to be charged to the organized profession, with its high ideals, but to individual miscreants, void of all motives except the greed for gain at all cost.

In conclusion, we respectfully submit that legal enactments and an ethical code are not altogether the growth of wrong-doing, but to a very great extent ideals, put into laws or into ethical codes, for the guidance of those whose life and morals are in the making, and for such purposes they will ever remain human necessities, deterrents to wrong-doing in the one, and stimulants to good deeds in the other direction.

Very respectfully yours,

H. B. LEMERE.
A. E. BARTOO.
J. L. GREENE,
President N. S. M. A.
A. D. WILKINSON,
Secretary N. S. M. A.
A. S. v. MANSFELDE,
Chairman.

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General Medicine.

Experience in Combating Yellow Fever.—R. H. von Ezdorf, Havana (Journal A. M. A., July 7), gives an account of his experience in the fight against yellow fever in the fall of 1905, in Louisiana. It was his part to instruct local authorities as to the best means of warding off an epidemic, and for this purpose and to secure public co-operation, lectures were given explaining the spread of the disease by the stegomyia and the measures needed to prevent it. These educational measures were usually successful and he gives a detailed account of his methods and experience in Tallulah, La., where 36 out of 40 blocks in the village were already infected when the call was made for help. The epidemic was fairly under control in two weeks by the practical extermination of the stegomyia and the well-known methods of isolation and disinfection advised in such epidemics. The complete extermination of the mosquito is difficult, but their numbers can be reduced to a minimum so as to bring the disease under control.

Gastric Ulcer.—From a study of one hundred specimens of gastric ulcer, eighty-two of which were chronic, thirteen acute and five undetermined, M. G. MacNevin, Butte, Mont., and F. C. Herrick, Cleveland, O. (Journal A. M. A., July 7), reach the following conclusions: "1. Seventy-three and three-tenths per cent. occurred on the lesser curvature or posterior surface. 2. The stomach rotation during digestion, and the adhesions are partial explanations of this fact. 3. Ulcers or scars were symmetrically placed on the anterior and posterior walls in 37 per cent. 4. Fibrin shreds were found in 74 per cent. on the peritoneal surface of simple ulcers. 5. Males with gastric ulceration die most commonly after thirty years of age from hemorrhage; females before thirty of perforation and peritonitis." The edges of the ulcers were thickened in 74.3 per cent. of the chronic and in 13.3 per cent. of the acute cases, and in over 45 per cent. the edge nearest the cardia was sloping, while that nearest the pylorus was undermined. In the remaining 55 per cent. the edges were irregularly abrupt, undermined or sloped. The stomach wall was perforated in 34.6 per cent. of the cases.

Treatment of Post-Anesthetic Vomiting.—Dr. Thomas D. Luke (Practitioner, September, 1905), divides the treatment of sickness occurring after anesthetics into (*a*) general and (*b*) local. In the first place, a quiet and warm atmosphere is essential in minimizing any unpleasant after-effects of chloroform or ether. A nutrient or simple saline enema is often of service administered directly after the patient has been put back to bed. With regard to local treatment, the mouth may be washed out with an antiseptic fluid. One teaspoonful of Hux-Sal in half a pint of tepid water makes a very agreeable and efficacious solution for this purpose. As a preventive of vomiting, a little egg-white solution, or albumen-water, in which two or three minims of the tincture of nux vomica have been dissolved, and flavored with a little fresh lemon-juice, is often successful. In other cases, a little sodium bicarbonate in plain hot water will dissolve the mucus that clings to the mucous membrane of the upper part of the alimentary canal. The wholesale deprivation of fluids is as cruel as it is unnecessary. Drugs are rarely of service, though minim does of the vinum ipecacuanha or of tincture of iodine in one drachm of water may be tried in obstinate cases of vomiting. Chloretone has not, in the author's experience, proved to be of much service. A mustard plaster over the epigastrium may relieve the condition when all else has failed.

Quarantine and its Relation to Public Health.—M. J. Rosenau, Washington, D. C. (Journal A. M. A., June 2), reviews the recent aspects of

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quarantine in its relation to public health, and states that it may be likened to jails, penitentiaries, houses of detention and other necessary evils of this world. He outlines briefly the work of the federal quarantine service and enumerates the diseases which have been stricken from the list of quarantinable diseases. He discusses the limitations of disinfectants and states that disinfection is no longer regarded as a panacea. Sanitation, he declares, is the only cure for quarantine regulations, and says that if all communities, especially seaports, were to place their cities in the best sanitary conditions, in accordance with the teachings of modern science, there would be little danger of disease spreading to epidemic proportions and practically no need of quarantine restrictions. Modern sanitation is very expensive. It means thorough drainage, proper disposal of wastes, good paving, pure water, and cities constructed with sufficient breathing spaces between houses, so that all the inhabitants may receive their proper proportion of fresh air and sunshine; it also includes the destruction of mosquitoes, rats and other vermin which help to spread disease, and a proper supervision of the food supply. He discusses the lessons to be learned from the recent yellow-fever epidemic, and reviews the opinions of various observers regarding the hereditary transmission of the yellow fever parasite in the mosquito.

Treatment of Bites of Copperhead Snakes.—C. W. B. Crum, Jefferson, Md. (Journal A. M. A., May 12), has had an average of two cases of bites by copperheads to treat every year for a number of years, and finds the following method to give incomparably better results than any other he has tried: He first freezes the area around the bite with ethyl chlorid spray, then incises through the wound, usually making two parallel incisions an inch long through the two fang wounds. He then soaks the parts for a few minutes with a strong permanganate solution and applies dressings wet with this solution. The edge of this dressing is raised up every hour or half hour and fresh solution applied. The trifling incisions usually heal in a day; an incision in an area poisoned by snake bite will heal with extraordinary rapidity, even if no effort is made at asepsis. He is inclined to attribute some virtue to the ethyl chlorid beyond the anesthesia it causes. The extension of the poison seems to be very quickly checked by this treatment, which he has tried in eight cases. If the patient is seen promptly—within an hour after the bite—he is usually all right in two or three hours except for a trifling swelling. Internally, he gives a few doses of strychnia, sometimes also, in deference to popular prejudice, alcohol and ammonia. According to his observation, the bite of small snakes is likely to be more dangerous than that of larger ones. Three cases are reported, illustrating as many different types of poisoning by copperhead bites.

Successful Treatment of Leg Ulcers.—To ascertain the cause in the treatment of leg ulcers is of greatest importance. A tuberculous, diabetic or syphilitic ulcer will require much closer study as to the constitutional condition of the local treatment. Anything interfering with the venous flow such as constipation, must be immediately corrected, and the patient's general nutrition looked out for. The leg should be rendered surgically clean by the generous application of sinol soap, folowed by irrigation of Thiersch solution. No matter what the cause of the ulcer be, it is wise, where possible, to confine the patient to bed with the foot elevated during the course of treatment; the limb should be firmly bandaged, extending from the toes to a point several inches above the ulcer. If possible, excision of the veins of varicose ulcer should be performed. Ulcers covered with unhealthy granulating surface or sloughing edges should be curetted, after which thoroughly irrigated with Thiersch solution and dressed every twenty-four or forty-eight hours with a hot Thiersch pack. When the surface presents granulations, applications of bovinine, pure, should be made, changing them three

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times in twenty-four hours. The most careful toilet of the limb should be made at each dressing. As a rule, the basis of all chronic ulcers is made up of an unhealthy, granulating mass, consequently it is impossible to bring about a cure until this has been removed. It will be readily appreciated that an ulcer thus covered can not absorb, consequently the great nutritive properties contained in bovinine can not be effective. This mode of treatment may be applied successfully to any form of ulcer, no matter what its cause may be.—Ryle, The Medical Fortnightly.

The American Medical Association.—The purposes and objects of the American Medical Association are considered historically in the Journal A. M. A., June 2, 1906. The original plan of organization as adopted in 1847 is given, and the basis of representation at that time is described. The various changes in and amendments to the constitution are related up to the St. Paul session in 1901, at which time the committee on reorganization, appointed the previous year, brought in its report, which was adopted. Two changes were made by the new constitution adopted at the St. Paul session, one being to change the basis of representation from one delegate to every ten members, to that of one delegate for every 500 members. This change was found necessary on account of the enormous increase in membership, in order to reduce the number who sat as delegates to such a size as would make efficient work possible. Previous to the St. Paul session the proportion of delegates to members was so large that practically every one attending the meeting could and did go as a delegate. The revision of the constitution reduced the number of delegates to 150, leaving the bulk of the members free to attend the scientific and social features of the session. The other change made was giving this delegated body the specific name by which it is now known, viz., the House of Delegates of the American Medical Association. The article reviews, in considerable detail, the work of the Association from its organization to the present time, and especial attention is given to the efforts in the line of pharmaceutical reform. In referring to the American Medical Directory, it is stated that an official register of physicians was suggested in 1847. The article concludes with the history of the establishment and development of the Journal.

The Medical Profession and the Issues Which Confront It.—In his presidential address at the Boston meeting Dr. W. J. Mayo (Journal A. M. A., June 9), congratulates the Association on its growth and prosperity and on the regained unity of the profession in New York, and points out that these are only the beginnings of the task before it. With its more perfected organization the profession must educate the public to appreciate the broad humanitarianism of modern medicine, and this can best be done, as Dr. McCormick has shown, through the local medical society. The good work of enlightenment of the public conscience as to the advertising frauds must be kept up and needed sanitary legislation secured. A higher general standard of medical requirements and better supervision of professional schools is demanded. No one, whatever he may profess, should be permitted to practice medicine without having proved that he possesses a knowledge of the fundamental principles of medical science, and this should be a universal requirement. There should also be an agreement, Dr. Mayo states, between the licensing boards of the different states as to the minimum of requirements, so as to secure more uniform examinations and reciprocity. The evils of lodge practice, hospital and dispensary abuses and the relations of the profession to corporations, insurance companies, etc., are also referred to; the money standard of success and the commission evil are deplored. The relation of the physician to the pharmacist, he states, is not so satisfactory as is desirable and mutual concessions may be needed for the benefit of both and in the interest also of the public. In conclusion Dr. Mayo speaks of the neces-

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sity of constant studious habits to a physician, and of a harmonious organization of the profession that will encourage right thinking and good usage, help to secure needed reforms, compel redress of grievances and promote and encourage the highest interests of its individual members.

Rocky Mountain Spotted Fever.—H. T. Ricketts, Chicago (Journal A. M. A., July 7), relates some experiments on animals in the study of this disease. The work was done in part under a grant made by the American Medical Association. After a fairly exhaustive search of the blood in stained and unstained specimens in two cases Ricketts was unable to identify a parasite positively either within or without the erythrocytes. Similarly, he states, aerobic and anaerobic cultures of the blood, made in bouillon and on agar plates of differing reactions, gave negative results with one exception. In the one exception mentioned, a staphylococcus grew in a flask of bouillon which had been inoculated with from 3 to 5 c.c. of blood drawn from one patient. In view of these negative results, it was decided to proceed at once with animal inoculations, although the microscopic examination of the blood and culture experiments were continued as new cases developed. He relates in detail experiments with rabbits and guinea-pigs and says that the results of these experiments were somewhat surprising since the failure to recognize the organism microscopically had suggested the probability that it was of exceedingly minute size and might be readily filterable. He would not assume that filtration is impossible, but states that it did not pass through the filter under the conditions of experiment. These experiments prove then, that the condition produced in the guinea-pig is an infection and not an intoxication, for otherwise the filtered serum undoubtedly would be as toxic as the unfiltered. In view of the infectiousness of the serum they also prove that the infecting agent is far from being an exclusive corpuscular parasite, and suggest very strongly that the organism is of such size that its ultimate and positive recognition with the microscope may reasonably be hoped for. In one guinea-pig the scrotum and testicles became enormously swollen, and on the sixth day the skin of the scrotum was occupied by large dark colored hemorrhages of irregular outline. Subsequent experience showed that this swelling of the testicles and scrotum and the hemorrhage into the skin of the scrotum is the most characteristic sign of the disease as produced in the male guinea-pig. Cultures of the heart's blood of the guinea-pigs after death remained free from discoverable growth. Another point of interest is that the guinea-pigs suffered from a more or less extensive macular eruption.

Experiments with monkeys are also related. From his experiments, Dr. Ricketts concludes that the condition produced has been an actual infection rather than a transferred intoxication, because it can be passed through the second generation of animals and because the filtered serum which would certainly contain any soluble toxins which might be present causes no disturbance when injected. No other cause of death in the animals experimented on could be found, and it was not possible to cultivate any micro-organism from the heart's blood.

When performing amputation, arthrectomy, osteotomy or similar operation it is wiser to leave the constrictor in place until the dressing is partly, or entirely, applied, than to remove it after tying the large vessels, in an effort to secure the small ones. In the former case the snugly applied dressing will safely prevent hemorrhage; in the latter case, there may be an alarming loss of blood from the numerous small vessels in the very time the efforts are made to tie them all.—American Journal of Surgery.

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WESTERN MEDICAL REVIEW

A JOURNAL OF MEDICINE AND SURGERY.

Published Monthly by WESTERN MEDICAL REVIEW COMPANY,
1238 O Street, Lincoln, Nebraska. Per Annum, $2.00.

The WESTERN MEDICAL REVIEW is the official organ of the Nebraska State Medical Association and is sent by order of the Association to each of its eight hundred members.

H. WINNETT ORR, M. D., EDITOR.

Entered as second-class mail matter at Lincoln, Nebraska, post-office, under the Act of March 3, 1879.

VOL. XI. LINCOLN, NEB., AUGUST 15, 1906. No. 8.

CANCER—CAN IT BE CURED?

In McClure's Magazine there is an article on the above subject which, as might be expected, has attracted a great deal of attention. The cure of tuberculosis and cancer may always be depended upon to interest a large number of people, and any man who holds out hope of recovery to the large class of individuals, the victims of cancer, may always find a ready and responsive audience.

Dr. Saleeby, this month's contributor to McClure's on the curability of cancer, presents an extremely optimistic view based on the treatment of cancer by trypsin. It may be supposed that he speaks for Dr. Beard, whose first reports on this method appeared about a year ago. There is strong reason to suspect, however, that Dr. Saleeby takes entirely too rosy a view of what may be accomplished by the trypsin treatment, for, so far as we are able to learn, there are few investigators who have even found slight encouragement by the use of the methods proposed by Dr. Beard, and none of importance who has advocated this treatment in the medical literature with the enthusiasm displayed by Dr. Saleeby.

The present writer feels justified in severely criticising McClure's for accepting for publication an article of this character, written by a man who is comparatively obscure and from a foreign country, even though it may be assumed that he speaks for Dr. Beard. We have within a comparatively few miles of the headquarters of McClure's men like Councilman, Welsh, and Roswell Park, who may certainly speak with authority on any question of

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the etiology or curability of cancer. It would seem more fitting, therefore, that any publication affecting so seriously the hopes and fears of that large share of our population affected with cancer should have as sponsor one of the most reliable physicians who can be secured and one of whose work and reputation we can all be assured instead of a man of whom comparatively few have even heard. The method advocated by Dr. Saleeby may possess much merit, but the large mass of the profession have certainly no reason to believe as yet some of the statements he makes regarding the results that may be expected from trypsin treatment. The aim of the medical profession has always been to accept only that which had been definitely proven to be of value, and trypsin as a remedy for cancer has certainly not been demonstrated to accomplish what is claimed for it in Dr. Saleeby's article. If McClure's really wishes to do justice to a subject to which it has given so much prominence, it will not close the discussion without having heard from some men who may really be considered authorities.

Notes and News.

Dr. L. S. Moore spent a week with his brother at Mankato, Minn.

Dr. H. D. Myers, formerly of Dodge, has opened an office in Howells, Neb.

Dr. J. Lewis Webb has located in Hebron, Neb., where he will practice medicine.

Dr. D. F. Smith has decided to locate at Wilsonville, Neb., instead of Arapahoe.

Dr. Robert Livingstone, of Plattsmouth, Neb., died in Lincoln, Neb., July 21 of drug poisoning.

Dr. Frank S. Marnell, of Nebraska City, has gone to St. Louis to take a post-graduate course.

Dr. George H. Parsell, of Falls City, Neb., has opened an office in Pawnee City, Neb., where he will practice medicine.

Dr. Marsh, of Seward, Neb., has been appointed recruiting officer and examining physician for those who desire to be admitted to the navy.

Dr. B. F. Bailey, of Lincoln, Neb., has been appointed a member of the penitentiary board to succeed Dr. W. T. Johnson, of Pawnee City, Neb.

Dr. and Mrs. G. W. Meredith, of Ashland, Neb., are visiting friends in Tacoma, Wash. They expect to visit a number of coast cities before they return.

Dr. M. V. Burrus, of Albion, Neb., has been called to North Carolina by the serious illness of his father. He will probably be absent about a month.

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DR. H. D. SINGER, of Omaha, went to Norfolk, Neb., July 28 to assume his duties as assistant superintendent of the Norfolk asylum to succeed Dr. Nicholson.

DR. MABEL DUNN, second assistant at the Lincoln hospital for the insane, has filed her resignation with Governor Mickey. She will go to New York to take a post-graduate course. The resignation is to take effect August 16. Dr. Hallie Ewing, of the Hastings asylum, has been appointed to fill the vacancy.

THE annual meeting of the Medical Society of the Missouri Valley will be held in Council Bluffs, Ia., Thursday and Friday, September 6 and 7. The date of the fall meeting was changed by amendment to the by-laws and will no doubt be much more satisfactory to the majority of the members. The sessions in Council Bluffs, the birthplace of the society, are always highly successful, scientifically and socially. Special railroad rates will be in effect at this time, within a radius of 100 miles of Council Bluffs, on account of fall carnival.

Book Reviews.

PROGRESSIVE MEDICINE. Vol. II, June, 1906. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, 368 pages, 31 illustrations. Price, per annum, in four cloth-bound volumes, $9; in paper binding, $6; carriage paid to any address. Philadelphia and New York: Lea Brothers & Co., Publishers.

The June number of Progressive Medicine exemplifies very nicely the increasing importance and usefulness of this excellent periodical. The first article reviewing the year's work on Hernia, by Wm. B. Coley, is exceptionally interesting and instructive. Following this is an article on Surgery of the Abdomen, exclusive of Hernia, by Dr. Edward Milton Foot. A Review, by Dr. John G. Clark, of the work during the past year on the Genesis of Carcinoma is also of unusual interest. His conclusions regarding diagnosis and operative treatment are worthy of careful study and consideration. The last part of the volume is devoted to Dr. Alfred Stengel's work on Diseases of the Blood and the Diathesis. Dr. Stengel contributes also a valuable chapter on the Treatment of Diabetes. The work conforms in its general make-up and appearance to the volumes which have preceded it, but also marks an advance in the character of its contents and the extent of the field it covers.

DO NOT empty a thyro-glossal cyst by aspiration before extirpating it. It is well to inject the cavity with a methylene blue solution first, in order to make sure that all parts of the cyst wall will be extirpated. Another method is to first empty the cyst and then fill it with paraffin.—American Journal of Surgery.

CHLOROFORM should not be administered too close to a gas jet or gas stove, as its vapors are thereby decomposed, forming products which when inhaled by the patient, surgeon and assistants may give rise to disagreeable and even serious effects, such as nausea, vomiting, and pulmonary and renal irritation. —International Journal of Surgery.

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Original Articles.

STRYCHNINE AS A REMEDY IN PULMONARY TUBERCULOSIS.*

W. F. MILROY, M. D., OMAHA, NEB.

It has finally been discovered that it is not any special kind of fresh air that cures phthisical patients, but rather an unlimited quantity of fresh air; forced feeding and rest being accessories. I am in full accord with the accepted doctrine of the profession today that the fresh air treatment of pulmonary tuberculosis, applied according to approved methods, should not be set aside for any other mode of treatment. However, it is well known to every general practitioner, and especially to those living in town, that the ideal conditions necessary for the best results from the fresh air treatment are often unable to be secured. This is due to a variety of causes which I will not repeat, but it is emphatically and lamentably true. It therefore follows, I apprehend, that the time is still in the future when our profession is justified, either in folding its hands and declining to put forth an effort in the interest of the victim of this disease, who is unable or unwilling to comply in detail with the wise counsel of his physician, or in ceasing to remember and to study other remedies that may be not entirely valueless in the treatment of this disease.

Ten years ago, the late William Pepper, in a short paper in one of the journals, called attention to the value of strychnine in pulmonary tuberculosis. Since that time I have repeatedly used the remedy with most gratifying results. It was the opinion of Dr. Pepper that success in this treatment was dependent upon its administration in the maximum physiological dose, and his plan, somewhat modified, I have followed. This principle I would particularly emphasize. Four doses should be given during each twenty-four hours as evenly distributed as convenient. In an adult begin with 1-30 grain at each dose. At the end of each period of five days add 1-30 grain to one of the doses until 2-30 are given four times daily. Above this amount let the increment of increase be 1-60 grain, or if the physiological limit is attained before all of the doses have been raised to 2-30, let subsequent increase be by sixtieths of a grain. It must not be assumed that the physiological limit has been reached until muscular rigidity has been produced. This, in my experience, has been (*a*) in the posterior muscles of the neck, causing a disposition to

* Read before the Nebraska State Medical Association, Lincoln, Neb., May 1 to 3, 1906.

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hold the head back; (*b*) in the muscles of the inferior maxilla, described as "stiffness" of the jaw; (*c*) or in the muscles of the anterior aspect of the thigh, making one incline to lift his feet very high in walking as if to step over some object. When one of these symptoms appears the dose should be diminished by about one-fourth and again increased to a point just short of that which previously produced muscle rigidity. It seems, however, of great importance to know that, during the activity of the disease, the dose that today causes the muscle symptom described may probably, a week or two later, be taken with impunity, and that repeated subsequent additions will be required to maintain the desired standard of the maximum physiological limit. In other words, a tolerance for the drug is established and the dose must be pushed to overcome it. The maximum daily amount that should be given varies in different cases. One patient of mine, a woman weighing about 120 pounds, took three-fourths of a grain daily for months. A friend of mine gave to a man weighing 140 pounds five-sixths of a grain daily for a long period and to a woman weighing about 110 pounds he gave one grain daily for five days with no symptom. It is most emphatically insisted that in this treatment the great benefit accrues only while the maximum dose is being taken, and that the efficacy of the drug in a given case has not been tested unless the dose has been pushed to the limit. As the disease subsides tolerance for the drug diminishes. I have repeatedly observed, coincidently with improvement in the local condition as shown by the physical signs, and after the general symptoms had greatly improved, toxic symptoms developed from a dose that had been taken for months with no unfavorable symptom. The thought is suggested of the possible antidotal effect upon strychnine of the tubercular condition.

Strychnine, when taken internally in physiological doses, exerts its chief influence upon the nervous system. Through this influence it causes increased acuteness of the special senses, increased force and rapidity of the cardiac contractions, as well as arterial tension and increased respiratory rate and capacity. In a word, all of the vital functions being dependent upon nervous stimulation for their activity, become more active by reason of the whipping up with strychnine of the nervous system. This includes indirectly, if not directly, the vital process of cell nutrition. Why does strychnine benefit tuberculous patients? I do not know, but I offer the following suggestions: Every individual is exposed to the tubercular infection. A few only develop the disease and many of these only after repeated exposures. Most persons possess the power to resist

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the invasion of the infecting agent, but a condition exists under certain circumstances in which this power is lost. This has been spoken of as the pretubercular condition. Many things are well known, which time does not permit me to enumerate, favoring the development of this "pretubercular" or receptive condition. They are for the most part unsanitary conditions. They all contribute to lower the vitality of the cells of the whole body. In this depressed vitality consists the susceptibility to the invasion of the disease. Now, cell nutrition is not a process of passive absorption; it is an active vital process. All active vital processes in the body look to the nervous system for their initiation and maintenance. The most powerful therapeutic agent we possess, tending to promote vigorous functional activity of the nervous system, is strychnine, and this, administered to the physiological limit, secures so vigorous an awakening of the sluggish cell life as to once more establish the broken defense against the tubercular invasion, and the disease is conquered.

From these propositions I propound the following corollary: In its ultimate analysis the fundamental defect, laying any individual open and defenseless against an attack of tuberculous infection, is a deficiency of vital nervous energy. In this consists the "pretubercular condition" of susceptibility.

Now all this sounds very pretty in theory, but I am able to assert that I have repeatedly observed it work out in practice with most favorable results. Time does not permit detailed narration of cases, and I ask your indulgence only to allow me to refer in general terms to the first one in which I made use of this treatment. That case made me a hearty believer in its value. A married woman 28 years old came to my dispensary clinic in the summer of 1898 with a violent and very acute attack of phthisis. She was having hemoptysis, often several times daily; aphonia; a violent cough with profuse and foul-smelling sputum, loaded with tubercle bacilli; severe night sweats; a temperature ranging from 101° to 104° and higher; nausea and vomiting, with inability to digest sufficient food; great prostration and loss of weight; in short, about every symptom that one is likely to meet with in a violent outbreak of this disease. Physical examination located the trouble in the upper part of the right lung. It was my opinion that the woman would not live two months. She lived five years and died of pneumonia. During those years she was under my observation most of the time. I was unable to secure very much modification as to her mode of living, which was not very favorable. She was placed upon strychnine and took

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no other medicine. Within a week she showed improvement and by the end of two weeks her condition was materially improved in respect to every unfavorable symptom from which she suffered. When the limit of the tolerance of the drug had been reached she gained in the most gratifying manner. In her case it happened over and over again that, the maximum dose having been taken for from two to four weeks, she presented herself complaining of a recurrence of one of the symptoms that had abated. The dose of the strychnine was increased to the amount that had previously produced a toxic effect and it was found to be well borne and even an additional amount was necessary. On each of these occasions the recrudescent symptom, whether cough, pain, hemorrhage, night-sweat or whatever it might be, soon again was relieved, thus illustrating both the establishment of tolerance for the drug and the necessity for the use of the maximum dose.

In thus using this remedy, I have made it an invariable rule to inform the patient what he is taking and to instruct him how to recognize the earliest sign of an overdose. With this precaution the only danger of accident is in the carelessness of the patient.

I am of the opinion that strychnine should be used in pulmonary tuberculosis whenever the fresh air treatment is not available. I know of no reason why it might not be used to advantage in conjunction with the fresh air treatment.

DISCUSSION.

DR. LE ROY CRUMMER, Omaha: I want to congratulate the doctor on his timely paper. The profession has gone to the extreme in accepting the so-called hygienic treatment. The numerous magazine articles we read giving only the idea of open air treatment lead the people to believe that all they have to do to be cured of tuberculosis is to live out of doors all the time with no other treatment. This is not the case. Of all the remedies that come to mind the best and safest is strychnine. I do not mean to decry the open air treatment, but there is an absolute necessity that drug treatment should be administered with the fresh air. I have used the strychnine treatment in tuberculosis to a great extent and have had very successful results. I do not mean that this will cure every case of tuberculosis, but if used in the early stages we can work satisfactorily and give a better prospect of cure if we use a remedy like strychnine. I have a different way of administering the strychnine than Dr. Milroy. I think 1-30 grain a day too high an increase. I use it in solution. I make a solution of 3 grains of strychnine to 15 drams of water, so that each drop receives about 1-300 grain of strychnine. Then, beginning with ten or twelve drops before each meal, I increase that dose every day one drop until I get the physiological effect as shown by the stiffening of the muscles. I get a combined effect with the water solution. Give it before meals, and in addition to the physiological activity of the strychnine it increases the appetite. I believe that the best and chief effect of strychnine is the producing of an increased activity of the glands of digestion. I think this paper is along the right line and we as medical men should contend that fresh air is only

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a part of the treatment of tuberculosis and that the combination of fresh air with proper medical treatment is a great deal more effective.

DR. MOORE, Omaha: As a colleague of Dr. Milroy I know he has been working along this line for several years and the results he has gained are very satisfactory. Several years ago, perhaps fifteen or sixteen years, our friend Dr. Mansfelde read a paper before this society advocating the use of nux vomica in tuberculosis. He reported very favorable results and so very favorable that I questioned it. He assured me, however, that he had met with unusually good results from the use of this drug. Of course the action of the mux vomica was dependent upon the alkaloids. In a paper which I had the pleasure to read before the Missouri Valley Medical Society on this subject I stated that the successful treatment of this disease depended upon a close surveillance and maintaining the power of elimination. There is no question about the fresh air treatment, but it must be taken in conjunction with proper medical treatment. Dr. Crummer has given a very good view of the case of strychnine, that it acts as a general tonic, and especially to the digestive organs, and renders the patient able to assimilate a larger amount of nourishment that he could otherwise. But, gentlemen, if we depend on internal treatment alone in these cases we will be left in the lurch. Fresh air and medical treatment must go together, but we must have proper ventilation also when we put our patients in tents out of doors. Put a patient in a tent with no ventilation and you have placed him in a most uncomfortable position. The tent is cold in winter and hot in summer and entirely devoid of ventilation. If a tent is properly constructed, however, it can be used to the best of advantage.

DR. MARY A. QUINCY, Ashland: It was my good fortune while a student to be privileged to observe the treatment of tuberculous patients by Dr. Milroy. I have also seen a number of patients in Dr. von Mansfelde's practice as well as my own under like treatment. All patients improved from the very first. I think the members of the Nebraska State Medical Association and all other physicians of the state should teach their tuberculous as well as other patients that Nebraska has as good climate as any state, and there is no need of going to Colorado, California, Florida, Arizona and New Mexico, with all the hardships of leaving home and friends, and perhaps falling into the hands of very indifferent physicians or none at all. All tuberculous patients should constantly be under the supervision of a wide-awake medical attendant. Teach all patients to stay in Nebraska and they will get well as quickly, and I believe more quickly, than by going away. I wish to say further that we have a tent in Ashland that is ideal. It is so constructed that in the severest winter weather the patient may be warm and comfortable and still have pure fresh air every moment, in summer cool and comfortable, thoroughly lighted and a specially designed stove. Any time that any of you may be in Ashland we shall be pleased to have you see this tent. Furthermore, a number of states have already established sanatoria for the care of tubercular patients; others have asked for appropriations for this purpose, and soon Nebraska will be ready. Let us urge it. Ashland offers a fine location; a high, well-drained, sandy hill could be obtained that now has a half block with an eight-room house that would make a home for the caretakers until a better one could be built. This property can be bought for $2,500. Immediately south of this is another half block that I believe would be donated, and still south a five-acre plat overlooking the valley, a fine southern exposure, one of the most ideal spots for tents. North and west is a western slope of cheap lots.

DR. MANSFELDE, Ashland: Upon the use of strychnine I desire to say that for thirty years I have used strychnine in tuberculosis with the very best results. In late years I have done considerable work in tuberculosis, and I want to say that if you have no remedy but one to use in

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tuberculosis, use strychnine. I have erected on my lawn a tent that I am satisfied is the ideal one for tuberculosis, and there is not a sleeping-room in any house in the state of Nebraska to-day, to compare in healthfulness and beauty to that tent standing on my lawn. It is now occupied by a young man from Ireland, and I mean to come to you next year and tell you what strychnine and that tent are doing for tuberculosis. In the meantime if you come to Ashland the latchstring is always out for you. With the proper tent Nebraska is quite good enough to remain in for the treatment of tuberculosis.

DR. MILLARD LANGFELD, Omaha: There has been so much harmony in this discussion that it does seem a pity to break it. There is probably no known disease that has so many remedies as the oldest disease, and I think tuberculosis is one of the most ancient of maladies we have to deal with. I take it that after you have used strychnine for four or five years you will come before this society with another remedy which you will offer with just as much enthusiasm. You remember it is not so very long ago when creosote and later its more tasty compounds were talked of by the profession, and of its beautiful effect upon the tubercular condition. Every remedy that is offered is taken for granted that it will help only in the early stages or in the preincipient cases. Preincipient cases, mind you, are the only ones which can be treated. No one, I believe, has brought out that in tuberculosis there is an excessive loss of nitrogen, and if strychnine has any effect it is along the line, as Dr. Crummer has said, in the aiding of assimilation and metabolism and thereby recuperating the body for its loss of nitrogen.

DR. MILROY (closing the discussion): All that has been said in this discussion, in reference to the results secured by the use of strychnine is simply in amplification of what I attempted to say. I abbreviated the matter, from necessity, more than I wished to do. Those who have experimented in the use of strychnine and its effects say that it exerts its chief influence upon the nervous system. Now that is the point I attempted to show. Every physiological function is dependent primarily upon the nervous system. It is only by its influence upon the nerve supply of the glands that glandular activity is promoted by it. Strychnine has no direct effect upon the glands. In a similar manner the increase in the frequency and depth of the breathing, referred to by Dr. Beede, is a response to nerve stimulation induced by the strychnine. The remarks of Dr. Langfeld are hardly in point, since I am exploiting no new remedy or cure-all for tuberculosis, but simply calling attention to the manner of using an old one and attempting to explain the good results observed from its use, upon a physiological basis.

THE LYMPHATIC GLANDS OF THE NECK.*

A. C. STOKES, M. D., OMAHA, NEB.

The lymphatics of the neck are perhaps the most frequently affected of any in the body. They drain an area which is subjected to all sorts of infections from childhood to old age, and it is rare indeed that these lymphatics escape some pathologic lesion during life. The exact manner of absorption of this material has been for some time a subject of considerable controversy and dispute, and while as yet one is not altogether satisfied with one's knowledge regarding these facts, through the careful investigations of Poirier,

* Read before the Nebraska State Medical Association, Lincoln, Neb., May 1 to 3, 1906.

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Cuneo, Delamere, Wood, and others, we are in a position to extend our knowledge considerably. These lymphatic channels lie immediately beneath the blood-vessels under the epithelial elements, indicating at least that the lymphatic capillaries have an opportunity to absorb their portion of the infective material coming from the mucous surface; hence it seems that they are aids in the absorption of the material deposited below the cellular area. The large lymphatic trunks, however, lie mostly anterior to the large blood-vessels. The lymph is a fluid resembling in constitution blood plasma; however, having some very important and essential differences, demonstrating beyond a question of a doubt that it is not blood plasma. Landois and other early physiologists have held that lymph is only blood plasma which has passed by osmosis into the lymph spaces and been taken up by the lymph vessels. Kölliker has shown a very pronounced difference between the two as follows: Blood plasma is far more alkaline than lymph. It has a lower freezing point, as shown by the cryoscope, and its albumins are not of the same character, and its specific gravity is somewhat heavier. This has led many to consider the origin of the lymph, and several recent theories have been advanced.

We have regarded the lymph channels as being vessels opening into spaces in connective tissue, from which they drain fluids not taken up by the arteries and capillaries. However, this is not the exact truth, as we have learned through the investigations of Poirier. He has shown beyond the question of a doubt that these lymph channels begin as closed culs-de-sac entirely lined with endothelial cells. We cannot find a record anywhere of anyone ever having seen a lymph opening in a connective tissue space, either in the famous peritoneal cavity or in any other lymph area of the body. It is no doubt true that Poirier is correct in his statement, and that our ideas concerning these lymph spaces and openings have been incorrect, and lymph vessels do not enter the lymph spaces. Hence the lymph fluid must necessarily pass through an endothelial structure which has been shown to have a selected filtration. Hence the lymph has its own special characteristics, and is a distinct factor in the physiological economy. It must be regarded as a secretion rather than an excretion. This fact is borne out by the characteristic anatomical structure of the endothelial cells, which allow of only certain kinds of osmosis exactly as the glomeruli of the kidney allow of a particular osmosis. Anatomically, several lymph vessels enter one gland, and in this gland are united and make their exit as one larger lymph vessel. The lymph circulation

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may thus be compared to a great number of portal circulations in which the lymph gland modifies the lymph in order that it may be returned to the circulation and enter its metabolic function, just as the secretions of the ductless glands are again returned to the circulation. The lymph does not contain either leucocytes or red blood corpuscles as a general thing, and the presence of these corpuscles in the lymph are only an accidental condition and are not a part of the regular lymph circulation itself, but are only results of leucocytic transudation. One of the notable facts regarding the lymph channels is the readiness with which toxines and micro-organisms pass into their lumens and are transformed in the glands.

One of the areas in which the lymphatics are exposed over a large surface is the oral cavity, and this fact accounts for several very common pathologic conditions. The mouth is lined with a rather thin mucous membrane, and all sorts of foods passing over this mucous membrane during the process of mastication and deglutition produce various instances of trauma, and at various points along this cavity. The food, when taken into the mouth, is oftimes brittle, tough, hot or cold, all tending to produce pathologic conditions of the mucous membrane. Also foreign bodies may scratch the surface of the gums, pharynx, tonsils, or larynx, opening large numbers of blood-vessels and lymphatics, and frequently admitting micro-organisms.

The order of infection in the mouth, with respect to number, may be as follows: The tonsils, the teeth, the pharynx. Just what the ratio of this number is seems rather hard to approximate, but the above is a fair statement of ordinary experience.

In order to arrive at a more definite understanding regarding the method of transmission of these micro-organisms, I will stop for a moment to discuss the anatomy of the tonsil. The tonsil, as you know, is a reflection of a membrane formed about the seventh or eighth month of intrauterine life and arises from the space between the first and second brachial clefts and of course is an ectodermic structure. The tonsil begins to form from this membrane by the development beneath it of the number of lymphoid cells, which formation is somewhat incomplete at birth. From the surface of the tonsil are constantly being poured out leucocytes. The origin of these leucocytes is, in all probability, from the blood-vessels of the tonsil, which are very abundant, and probably have nothing at all to do with the lymph channels in the tonsil, or the so-called lymph spaces. This current of leucocytes, according to George B. Wood (American Journal of Medical Sciences, August, 1905), is both a

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protection and a cause of infection; for when the current is strong enough it prevents the entrance of micro-organisms into the lymph channel; but if the lymph channels are opened, the entrance of the leucocytes, themselves, through the open space often carries with it micro-organisms which produce glandular involvement.

The direction which these lymph vessels take, as we have been able to determine by the injection of Bismarck brown into the tonsils of two cats, is as follows: Leaving the tonsillar mass and running posteriorly and inferiorly, they pass slightly outward beneath the facial artery, running along the upper border of the lingual vein, then turning directly posterior, they pass between the stylohyoid muscle and the internal jugular vein, reaching the upper surface of the tonsillar lymph gland. Running beneath this and internal to the stylohyoid muscle and the posterior belly of the digastric muscle, they enter the internal side of the tonsillar lymph gland. From there gland after gland is infected by the efferent ducts of the lymphatics until the whole chain along the anterior border of the sterno-cleido-mastoid may be involved.

Infection introduced through abrasions in the mucous membrane of the tonsils is most frequently brought about by the process of deglutition. In this process the food is caught in the inferior pharynx by the superior and inferior contractor muscles of the pharynx, and the food is pressed solidly against the wall of the same, and hence against the tonsils, causing abrasion, and allowing the passage of germs into the lymphoid mass of the tonsil, or perhaps forcing the micro-organisms into the crypts of the tonsil, where, under favorable circumstances, they travel through the mucous membrane of the tonsil or possibly into the supratonsillar fossa, where they may burrow under the mucous membrane and, not having a good outlet into the lymph areas, they are circumscribed and form often peritonsillar abscesses or quinsies. This process may take place anywhere about the tonsil. It seems to be an established fact that the supratonsillar fossa is a chosen area for the entrance of micro-organisms around the tonsil, which accounts for the fact that most peritonsillar abscesses are anterior.

The second area from which lymphatic glands of the neck may become infected is the teeth. This occurs more particularly in children. The exact road traveled by the infection in these particular cases is not clearly made out. So far no one has demonstrated the fact that either the pulp of the tooth or the artery supplying the teeth is accompanied by lymphatics; hence it leaves us only to consider the question of the lymphatics which drain the gums, the

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peridental membrane, and the bone. It is a well-known fact that infection may travel down through the root canal of a tooth, make its exit through the apical foramen, burrow throught the thin plate of jaw that often overlaps these, and produce on the jaw a periostitis. When it does not circumscribe and form pus, or even at the same time, the glands may be affected. They are usually the submaxillary glands or parotid glands of the superficial cervical set in the anterior triangles of the neck. Odenthal and Starks' investigations have proven, beyond doubt, the connection between hyperplastic lymphoma of the neck and caries of the teeth. In 80 per cent. of all cases of enlarged glands of the neck, as reported from Bilroth's clinic, caries of the teeth was present. In the remaining 20 per cent. there was a history of tuberculosis, previous diphtheria, or sore throat. In 41 per cent. of the 80 per cent. no etiological factor, except caries of the teeth, could be found. The situation and number of the glands affected in this latter class of cases corresponded exactely to the teeth affected. The average age was 8½ years. It is stated by Von Bergman that after 8 years of age inflammations of mucous membrane progressively diminish in number, and the lymphoid tissues become more resistant to the passage of micro-organisms.

Laser found only 137 cases out of 1,216 school children without glandular enlargement. The enlargement could be traced to different diseases as follows: 79 per cent. have had measles, 35.5 per cent. have had scarlet fever; 21.9 per cent. inflammation of the tonsils; 18.8 per cent. diphtheria, and a few tuberculosis. Volandt examined 2,506 children, and found glandular enlargement in 96 per cent. of children between the ages of 7 and 9; the percentage gradually diminishing up to the age of 17 and 18 years, when it was only about 18 to 20 per cent. From these statistics I am inclined to believe that enlarged glands of the neck are not tubercular as often as we may think, for tuberculosis seems to form only a small per cent. of the infections of lymph glands in children. Frankel, however, has demonstrated the fact that such cases do exist, because he has shown the presence of the tubercular micro-organisms embedded in the lymphoid tissue of the tonsil, giving absolute evidence that the bacillus of tuberculosis can pass directly through the tonsil.

The posterior pharyngeal abscesses fall practically under the same laws which govern the formation of tonsillar abscesses, and the lymph glands may be infected in practically the same way as they are infected from the tonsils, but not nearly so often, because of the anatomical structure of the mucous membrane covering the posterior

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pharynx. This area is drained into the deep, cervical glands in the posterior triangles of the neck, occasionally affecting the glands along the internal jugular vein. Infections from the tongue and floor of the mouth are drained as shown in figure 8. We see, therefore, that the different areas of the mouth are drained by different lymphatic glands; consequently the enlargement of the glands at different points about the neck indicates the point of the original focus. The glands about the neck form almost a collar, extending from the submental glands in front to the occipital glands behind. They form two sets; the first set lying superficially to the deep fascia, and the second set lying between the first and second layers of the deep fascia. These superficial and deep glands communicate by efferent ducts, as illustrated in figure 3. Operations upon the neck for infected lymph glands involve a definite knowledge of the position of these glands, and one must, as far as possible, remove the entire chain of infected glands. I do not intend, in this paper, to discuss in detail surgical interference, but only to make a few remarks regarding important points.

First, as to indication for operation. Operation is indicated under the following conditions: (*a.*) When the hyperpoplastic growth of the glands is persistent. (*b.*) When the glands are increasing in size. (*c.*) When any evidence can be obtained of the extension to other glands. (*d.*) When all forms of constitutional treatment have been tried and failed.

The only surgical procedure worth considering is total excision, and this, if possible, before glands have broken down and formed abscesses. No surgical intervention is perhaps more deceptive than the removal of infected lymph glands in the neck. A condition which apparently is a very simple one when seen from the external manifestation, may become a very formidable procedure before one has finished the operation. The adhesions may be very numerous and the anatomical landmarks almost entirely destroyed. The glands may be adherent to the internal jugular vein. Von Bergman has ligated this vein and removed sections of it in sixteen cases, with no untoward results. The carotid arteries are almost never involved, nor the pneumogastric nerve. It is often necessary to divide the sternomastoid muscle. When such is the case, it should be divided below the loop of the descendens hypoglossi and the spinal accessory. It is always best to dissect, so far as possible, with the sharp edge of the knife. Blunt dissections in this area are liable to press infective matters from the glands, and infect the whole field of operation. Again, blunt dissection tears open the lymph channels and

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veins, making a much more receptive area for infective material than when the edges are clean cut. It is always well to ligate lymph channels rather than cut them when such a thing is possible, and. in the removal of strings of lymph glands, the final vessels and fascia are best ligated rather than cut without ligating. Many authorities to the contrary notwithstanding, I prefer ether to chloroform in these operations, whenever it is not especially contraindicated, and I do not believe in the statement that chloroform is a safer anesthetic in children than is ether.

DISCUSSION.

DR. H. B. LEMERE, Omaha: I am very pleased indeed to hear Dr. Stokes's splendid paper and I am particularly gratified that the general surgeon is coming to the position of the throat specialist. The laryngologist has long been preaching the thorough removal of the chronic diseased tonsil, urging that it is a source of infection for the lymphatics of the neck and through these for general infection. Dr. Stokes has shown the anatomical cause for this very plainly. I am compellel to take issue with the doctor, however, on the main source of this tonsillar infection. Infection of the throat resulting from deglutition I think rarely occurs. In swallowing, the tonsil is compressed by the action of the palato-glossus and palato-pharyngeus, so that the tendency is for matter to be expressed from the tonsil rather than that anything should lodge in it. Mouth-breathing I am convinced is the most important factor in producing infection of the tonsil. The dust laden with its bacteria is inhaled; the bacteria find a moist, warm home in the irregular and lobulated tonsil; and the mouth-breathing being almost constant the tonsil will become chronically diseased. Of course the tonsil is not the only part of the adenoid ring whose infection may result in cervical adenitis. The pharyngeal adenoid and the lingual tonsil may become infected and cause enlargement of the cervical lymphatics. The tonsil may apparently be innocent, but on the enlarged cervical lymphatics arousing suspicion, when the tonsil is compressed strongly the crypts are found to communicate with large masses of cholesteatomatous material buried deeply in the tonsil.

DR. E. C. HENRY, Omaha: I feel we are inclined to look upon the lymphatic system as the sewer of the human body. Have you ever thought that the greater part of the secretion of the so-called ductless glands eventually empty into the lymphatic system? The lymphatic system is one of the most important secreting glands of the human body. In speaking of the tonsil in the upper part of the alimentary tract, we are just beginning a great system. In the lower animals there is no spleen, but lying in the submucous tissue, extending from the mouth to the beginning of the large bowel, is a single layer of lymphoid tissue. Then, as we come up in the scale, this lymphatic tissue is grouped in clusters, until in man we find in the posterior part of the pharynx, the tonsils, and a lot of lymphoid tissue at the left of the stomach, the spleen, and at the junction of the large and small intestines, the appendix. I cannot see any difference between tonsilitis and appendicitis, so far as the type of inflammation is concerned. It is the same disease in the same kind of tissue in a little different place. Diseases that affect the lymphatic system constitute some of the most important diseases that affect the human system. For example, typhoid fever, appendicitis, and tubercular adenitis.

DR. F. S. OWEN, Omaha: I am glad the writer has called our attention to the fact that all portions of the mucous surface of the oral cavity are

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susceptible to the conveyance of disease by infection. The prominence so often given to the tonsils as "portals of infection" is prone to make us lose sight of this important fact. Recent experiments of Goruc and Jonathan Wright have demonstrated that the tonsils have been given too important a role in the causation of disease, especially of tuberculosis. In more than three hundred cases examined by these careful observers, not a trace of tubercular involvement was found. Hence one of the important points the writer of this paper makes, to my mind, is that other portions of the mucous surface of the oral cavity offer ready routes of entry for micro-organisms, which should be taken into consideration when dealing with infective processes in the neck and elsewhere.

DR. STOKES (closing the discussion): I have not anything particular to add. I wish to thank the members for such a liberal consideration of my paper; however, I was disappointed in one thing, viz., that the anatomy of the lymphatics was not more discussed than it was, for it is, beyond a question of doubt, proven that there is no such thing as a lymphatic vessel opening into a lymph space. This fact entirely revises our concept of the lymphatic circulation, and I had hoped it would be more generally discussed. The parts that I was compelled to omit in my paper, for want of time, were the parts referring to infections traveling through the pharynx and nose. However, it seems to be accepted that the majority of infections come through the tonsils, but that the greater per cent. are not tubercular. With respect to Dr. Lemere's statement that in deglutition the tonsil was not injured, perhaps he did not make himself quite clear. I am well aware that the tonsils are somewhat more covered at this time, but that the micro-organisms are brought there by the food is also a fact, and I cannot but believe that the chief infective process of the nose, throat and tonsil is the process of deglutition.

TREATMENT OF EPILEPSY.*

FRANK E. OSBORNE, B. SC., M. D., BEATRICE, NEB.

It is not the intention of the writer to go very extensively into the well-known methods of treatment of epilepsy, but rather to bring before you some important features that, for the benefit of the patient and the community at large, should not be forgotten.

Because of the constancy of this disease in all peoples and at all times, and because of its seriousness and lack of epidemic nature, there has been found here a field unparalleled for the observer. On the other hand, probably no disease has presented greater difficulties relative to the exact nature of its etiology and pathology; and at this time, despite the efforts of the most painstaking investigators, these elemental factors are but partially solved other than in theory. As a result the treatment of this malady has been largely empirical; but certain definite conclusions have been reached, among them the following: The convulsion itself is only a symptom of the underlying cortical changes—whatever they may be; and as the mental and physical deterioration produced by the disease progresses,

*Read before the Nebraska State Medical Association, Lincoln, Neb., May 1 to 3, 1906.

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it is augmented by each one of the attacks, which are apt to become more frequent and violent.

It is of primal importance that the treatment should commence as early as possible after a diagnosis has been made. When the individual's history and present condition have been studied and all sources of peripheral irritation, of whatever nature, have been removed, the number of convulsions in the majority of cases will decrease. It is then, and only then, when these factors have been removed, that the best results can be obtained from any medication.

Of the many preparations that have been employed, but few have stood the test of time, and yet no fact in medicine is better known than that the bromides control the convulsions to a greater or less degree. The bromide of potassium without doubt is, par excellence, the treatment to first establish. Despite the fact that it is more irritating than some of the other bromides, its other advantages more than offset this. When this does not produce the desired results, the others may be tried separately or in combination, well diluted in water, preferably four or five hours before the attacks when of a diurnal or nocturnal nature and when they can be foretold by the patient, which is often the case, otherwise after meals. By giving them after meals they produce a systemic effect rather than a local effect on the stomach, the appetite is not interfered with nor is there so much danger of nausea. In conjunction with them may be used digitalis, belladonna, antipyrine, or chloral hydrate. Bromipin, a bromonized oil of sesamum, and urethane, the latter in 20 to 40 gr. doses, have been recommended by Spratling. Ethylene bromide, amylene hydrate, silver nitrate, nitroglycerine, strophanthus, borax, opium and other preparations have been found beneficial in individual cases.

No definite rule can be laid down for the use of these remedies. Their effects must be carefully watched. If the desired results are not obtained by the use of one, another may be tried until one is secured that produces the results looked for, then keep the treatment there as long as possible, always making necessary changes gradually and continuing treatment for two or three years after all convulsions have ceased. The writer has purposely left out the doses of these drugs to be given. The physiological result is the criterion upon which all our labors must be based.

Sometimes the following clinical picture presents itself, especially among those cases of long standing where home and newspaper treatment has been predominant. The individual complains of loss of appetite, perhaps of vomiting and constipation, loss of weight, a

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mental hebetude, bad temper, irritability, and perhaps melancholia with homicidal or suicidal tendencies. Added to this there is an acne of face and body. There may be failure of memory, somnolence and loss of sexual desire. This condition is perhaps not entirely due to bromism, for the symptoms of the disease are in part the same, but from the former treatment one can soon draw a conclusion, and if too much treatment accounts for the condition, a change must be inaugurated at once. Decrease the treatment gradually. Give medicine in relation to the convulsions rather than attempting to keep up a saturated condition. Increase elimination through all the emunctories; use tonics where indicated, and arsenic (preferably Fowler's solution) will do much to alleviate the skin affection and at the same time aid digestion and increase the appetite. This latter remedy also acts well upon the sexual apparatus.

The hypochlorization method of Toulouse and Richet affords a method of decreasing the bromide salts about one half without enhancing their value. Instead of sodium chloride with the diet, sodium bromide is substituted. This treatment has been employed in the Massachusetts Hospital for a number of years and is found exceedingly beneficial.

Despite the fact of the unquestioned value of the bromides when properly used in this disease, there is no doubt but that a chronic bromin intoxication produced by their indiscriminate use has caused diseased conditions not far worse than the disease for which they were given.

The condition known as status needs especial mention. Here the convulsions follow each other so rapidly that the patient does not regain consciousness between the attacks, and within a few hours dies from asphyxiation or exhaustion or both. This condition may be brought on by too sudden withdrawal of previous treatment, obstruction of the organs of excretion or any marked change or irregularity in the mode of living.

The writer has found the hot bath followed by vigorous friction to be of benefit in some cases. Chloral per rectum, where the heart will permit, may be used, or it may be combined with one of the bromides. Strychnine, on account of its irritability to the spinal cord and cortex, is contraindicated. Amyl nitrate affords a remedy of value in stopping the attacks, probably by its sudden shock to the nervous centers. Hoppe has used dormyal, which he says ranks with amylene hydrate but possesses the advantage of no bad after-effects. He gives two or three tablespoonfuls per rectum of a 10 to 150 solution in one-third to one-fourth liter of water. Blood-

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letting followed by a normal saline infusion is of benefit, but blood-letting alone, except in cerebral congestion, which is rare, is detrimental, as cerebral anemia alone will produce convulsions. Morton has found in many cases that the hypodermic injection of sterile sodium bromide solution, 30 gr. to the ounce in small doses repeated until as much as six ounces has been given, is of benefit. He also reports fair results in desperate cases by the withdrawal of 10 to 15 c.c. cerebrospinal fluid.

The goat lymph treatment, that has been found beneficial in a number of chronic diseases, has been used in epilepsy. Willis P. King says that in the functional type the curative results have averaged 50 to 60 per cent., but the promoters themselves are not very enthusiastic over its results when used in long-standing cases of the idiopathic type.

The writer followed this line of treatment in two cases of idiopathic nature, one where the convulsions had extended over a period of ten years, the other of a year and a half duration. Hypodermic injections of the preparation were made twice daily for a period covering several months. In addition special care was given to diet, and in one case physical culture and hydrotherapy were employed. When the treatment was concluded, no particular effect had been noticed upon the convulsions more than could easily be accounted for by the extra dietetic and hygienic measures employed. It is quite probable that any benefit from this mode of treatment must be applied early and then with better results in the functional type of the disease.

In those cases where epilepsy follows injuries of the head, or where abscess, tumor, thrombus or embolus are present, operative treatment is indicated, and it has proven itself beneficial; but this treatment is of practically no value in the idiopathic forms of the disease and may aggravate it. Ligation of the vertebral arteries and nerve stretching have been employed, and Delageniere reports ligation of the superior longitudinal sinus to have stopped the convulsions in two cases. Surgical treatment where indicated, like all other forms of treatment, gives better results when early performed, but in some cases of long standing operations upon the brain have lessened the severity of epileptic attacks.

Electricity has not heretofore been considered of much value in the treatment of this disease, but the recent rapid progress made by the electro-therepeutist in his art holds some encouragement. Tracy has found that with high frequency currents combined with X-radiations he can reduce the convulsions, and when he has

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used in conjunction 15 to 60 grains of sodium bromide a day, 12 per cent. of the grand mal attacks have been tentatively cured. He suggests that it is possible that the currents have a chemical effect upon the bromide, possibly liberating more in the circulation so that a greater effect is produced by less of the salt.

Having briefly reviewed these various methods and results of treatment in epilepsy, it must be admitted that, excepting the use of the bromides, relatively little is accomplished. There is a line of treatment, however, rapidly gaining favor which, in conjunction with medical treatment, offers the epileptic a far greater chance of recovery than heretofore. Reference is made to the advantages derived from segregation and colonization of these classes.

The first benefit derived from such a regime is of a prophylactic nature. Reliable statistics show 50 per cent. of all cases of epilepsy to be due to various diseased conditions for which the parents are directly responsible, while 16 per cent. of all epileptics have directly inherited the disease. Thus it becomes at once self-evident, could we control by suitable regulation this unfortunate class, 16 per cent. would be the falling off in a generation's time—a far greater percentage than the most sanguine observers report cured today.

In special institutions for the care of these individuals, there comes at once a benefit derived from change of scene, habits and mode of living. The epileptic who has been pitied, petted and humored by his friends and tabooed by the rest of society finds here a refuge among similarly afflicted and sympathizing friends. In his own home, where nothing has been spared that the love of parents and friends could give, he has grown up a privileged character, passionate, selfish, lazy, independent and perhaps gluttonous. In his new home he finds the world does not move around him. He soon learns to think less about himself and more about others, and is taught to do some of the arduous duties of life that have heretofore been done for him.

We are rapidly learning the value of systematic and well-ordered exercise and occupation for the epileptic. A two-fold benefit should result from this exercise therapy, for while the body is receiving an all-around development the mind as well must be occupied. Some institutions have gymnasiums where a course of indicated work is assigned each individual. In this way groups of muscles but poorly developed may be strengthened. Along with this exercise should go congenial occupation at some trade or outdoor work. This not only occupies his mind, but makes him of

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some use in the world, removes the thoughts of his own malady and wards off mental deterioration that would inevitably result.

It is not always possible in the home to provide suitable diet for the epileptic, on account of his very nature, and on account of the fact that he is at home; but, in short, the diet should be simple (containing both proteids and carbohydrates) and in reasonable amounts. The food should be such that it can be easily digested and it must always be given with regularity. Nearly always the epileptic is a hearty eater and much trouble may arise from his overeating. The principal foods to be guarded against are meats and pastry and those containing grease. Tea, coffee and all stimulants should be avoided.

There is no question but that advances made in the treatment of epilepsy in the future must be made largely while the disease is in its incipiency. The public as well as the profession must realize the importance of doing everything possible to prevent a second seizure. Generally speaking, home environment is not conducive to the best interests of the patient, and any medication cannot fulfill its highest mission without the advantages found in a well conducted institution where the individual must comply with the hygienic, dietetic and disciplinary regulations.

In this, as in most states, the epileptics under state control are scattered through all the public institutions, but their numbers are chiefly found in the hospitals for insane and the feeble-minded institution. All but a very small percentage of these individuals are mentally defective and might be well classed in these institutions; but the "colony idea," as best exemplified in New York and Massachusetts, has proven that the results are uniformly better where they receive care in any especially equipped institution. Kindergarten and elemental school work, sloyd and manual training, colonies for the adult where his early training may continue and become of productive value, and finally custodial care for the criminal, infirm and insane,—an application of all these together with the best hygienic, dietetic, and medicinal measures,—experience is teaching us, offer the epileptic the most promising means of recovery.

In as small a state as Nebraska, a separate institution is not as practical from an economic point of view as it is in a more thickly populated state, but here there should be a classification with separate buildings and grounds according to the requirements of sex and physical and mental conditions, the whole to be under the management of one of the other institutions.

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When public sentiment through the medical profession becomes more appreciative of the needs of this class, then the demand will be imperative for the segregation and colonization of these individuals, and this method, at once economical, humane and successful, will become possible.

DISCUSSION

DR. A. C. STOKES, Omaha: I was very much interested in the doctor's paper, and I cannot let it go by without some discussion. It is a very well written paper, and I enjoyed it very much. There are one or two points, however, which I should like to speak of. In the first place, from a surgical standpoint, and from a pathological standpoint, epilepsy is overclassified. To me there are only two kinds of epilepsy; one in which we know it is pathology, and one in which we do not know it is pathology. Epilepsy in which we can determine the pathology from symptoms in properly selected cases can be approached surgically, with considerable hope of relief. I refer particularly to the kind of epilepsy known as focal epilepsy or Jacksonian epilepsy; that particular kind of epilepsy in which the aura always begins at the same point, indicating a disturbance at that point. In these cases we are pretty certain that there is a definite local pathology, and they can generally be benefited by surgical interference. One must also remember that the cranium does not always bear exactly the same relation to the brain; consequently, no matter how well the measurements may be taken on the outside, the pathological area may vary somewhat on the inside. Therefore, a focalized area should be located by some more definite method inside the skull. Sir Victor Horsley told us how to do this by the application of the electrode upon the brain until he found the point of irritation on the brain to produce a disturbance corresponding to the local disturbance of epilepsy. This was a point which has been very valuable to us.

DR. OSBORNE (closing the discussion): I have not much to add, but I wish to make clear that epilepsy due to injury does find relief from surgical treatment, and I think the success of the operation depends altogether upon the time of the operation. The earlier the better.

IS INTERNAL MEDICINE A FAILURE?*

W. H. WILSON, M. D., TABLE ROCK, NEB.

Why ask such a question? Why choose such a subject for a paper to be read before a body of medical men? Why should the medical man presume that any one would be at all likely to think of answering the question in the affirmative?

These, amongst others, are some of the queries that may be suggested to the mind by the title of this paper.

On looking about us we see suffering, sickness, and death upon every hand, and to the casual observer it may seem that the medical profession is not very successful in its efforts at staying the former or averting the ravages of the latter.

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* Read before the Nebraska State Medical Association, Lincoln, Neb., May 1 to 3, 1906.

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Then we call to mind the fact, that some who are actively engaged in the practice of medicine, if they are to be judged by their private and public utterances, appear to have grave doubt, to say the least, as to the efficiency of internal medication in the treatment of disease.

These, together with other reasons, we believe, constitute sufficient excuse, if excuse were needed, for the bringing of such a paper before this association.

When it is taken into account, the considerable number of persons who are eschewers of all medicine and are ardent believers in and adherents of the Christian Science, so-called, method of dealing with disease, or practice of the healing art, and take cognizance of the fact, the number is materially on the increase and that this cannot be explained away by the claim that the cult is composed largely of the superstitious, ignorant and uncultured elements of society, for such is not the case. Superstitious they may be and to a marked degree undoubtedly are, but a good per cent. of them are fairly well educated, moderately well to do and of a reasonable degree of refinement, and some of them persons of wealth and culture.

Then if to this number be added the believers in and supporters of the oseteopathic system of healing and the number of the believers in the healing of the sick without the use of drugs is perceptibly increased.

Lest we forget, it may be well to call attention to the fact, that each of these classes is sufficiently influential to prevent legislation which seems to them inimical. Even more than this, for they usually succeed in their efforts to secure special legislation which it is believed will serve to entrench them in their position.

Indeed these appear to have more influence with legislative bodies and greater standing in court than the combined influence of the three long established schools of medicine.

It would seem that the foregoing might be urged as rather strong evidence that internal medicine is something of a failure after all.

Then of the non-drug-giving healers are to be mentioned, the Dowieites, the magnetic healers, the hydropaths and numerous other mixtures. All of which go to augment the sum total of the classes already mentioned, and adds to the force of the argument if it be counted as such.

But what to my mind appears more significant than all of the foregoing is the seeming lack of confidence in drug treatment of disease as manifested by many within the profession. Opposers,

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critics and even foes may be expected from without and may or may not be formidable, but distrust within the ranks, if extensive, would mean much more.

Here the question may be asked: Is there any reason for believing that any considerable number in the profession lack confidence in internal medicine as a means of restoring the sick?

Such a question we believe would have to be answered in the affirmative, but the answer is subject to later qualifications.

There seems to be a disposition on the part of many surgeons, especially during the past few years, to assume an attitude calculated to rather discredit internal medicine. Such an attitude tends to create a feeling of uncertainty as to the results of the internist, while the work of the knife is pointed to as giving results that are definite and uniform.

But are they always uniform? Let the surgeon answer. These seem to be making a most strenuous effort to bring all the afflictions that mortal flesh is heir to into the realm of the surgeon and subject to the same scepter which he wields.

Again, no doubt some recall having read a collection of articles, a year or two ago, from the pens of a number of prominent physicians in different sections of this state, and all with one accord rather admitted that there was a falling off in the former faith in internal medicine and each giving his views as to the cause.

We hear medical men talk of self-limited diseases and the number seems to be on the increase. Men high in the profession publish articles in the journals in which is set forth the fruitlessness of internal medicine in pneumonias, the continuous fevers, etc.

The argument being made that such diseases being self limited are therefore uninfluenced by medicine.

In view of what has been said and much more that might be said along these lines it should not be thought strange if the question be asked: Is internal medicine a failure? Should it be concluded to be a failure, then, in this age of push and progress would soon be relegated to the rear and before another century dawned would be mentioned only as one of the lost arts. This is rather a dark side to the picture and such an outlook is gloomy, indeed, to the physician who believes in his profession and who has long looked upon it as a high calling.

But let him not be unduly alarmed, but rather let him arouse himself and work to make his science a more perfect one and his art a more efficient one.

So long as humanity remains humanity, which will be so long

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as time shall last, there will be human ailments, and so long as such ailments exist, the administrations of the internist will, in the future as in the past and present, continue to be the paramount method of combating such ailments.

Christian Science, Dowieism and other forms of faith healing, so called, may for a time meet the demands or requirements of some morbid persons, some hysterical persons, some hypochondriacs and such others as belong in these classes. But when disease, as an entity well defined, takes hold of the individual, invades the homes of a community or makes prostrate vast sections of the population as it occasionally does, the healing fads just named will not suffice and the stricken and their friends will continue to rely upon and look to the medical profession for relief.

Just here I will venture a prediction: A quarter of a century hence Eddyism and Dowieism each will be a thing of the past. Dowieism a thing almost of ancient history and Eddyism but little more than a memory.

Even now Dowieism manifests marked evidence of decline and speedy dissolution. Eddyism, too, is but an effort at systematizing old efforts at faith healing which have existed in various epochs of society during the centuries that are past. Some such methods would spring up from time to time, almost in a night, flourish for a time and give great promise as to perpetuity to their devotees, but alas! vain hope, for they failed utterly to meet and withstand the crucial test of time and necessity, hence were driven from the stage to be lost sight of and forgotten until another cycle rolled around, resurrecting the old skeleton, clothing it in perhaps a little different garb, causing it to do service for a time until again the story is repeated.

Thus it has ever been with such things and thus it will continue to be doubtless for all time.

As to osteopathy, there is about this much to say of it and for it: There are two worthy elements in it, but however commendable these may be, either or both, or the sum total of all there is in the practice falls far short of doing all that can be done or should be done in most cases of real sickness.

The two elements above referred to are, faith and massage, both of which are and have been recognized as useful adjuncts by all schools of medicine.

The inspiring of the patient with hope and faith in the means used, I believe is recognized by all successful practitioners to be valuable.

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That thorough and systematic massage in selected and suitable cases may be of great benefit, perhaps few, if any, would deny.

It is very likely true, that the medical profession has not given massage the attention which it merits, hence perhaps the reason for its becoming dignified into a distinct school of healing.

Serviceable though it may be in some cases, yet it is wholly inadequate to meet the requirements in even a small per cent. of human maladies.

Surgery may seem to be ever and anon encroaching upon the domain of the internist and it may be thought by some that, by and by, the internist would be driven from the field and the man with the knife take full possession of the healing art.

There is not occasion for any apprehension here, chiefly because of the fact that a large per cent. of ailments that the race are subject to are not surgical, never have been and never will be, hence not amenable to the knife, and no one recognizes this more than does the true surgeon.

Surgery is the great subdivision of the healing art and all loyal, right-minded members of the profession are justly proud of its splendid achievements; yet, wonderful though they are, still they are circumscribed, as has just been indicated.

The croaker may tell us that pneumonias, fevers and other acute diseases are self-limited, therefore not influenced by medicine.

In the hands of such it is quite possible internal medicine is a failure, but to the one who carefully studies his cases, wisely selects his remedies and persistently, systematically and judiciously follows up their administration aided by proper sanitation and suitable diet, will be satisfied that medicine is not a failure.

Even in the diseases usually designated as self-limited, if taken in their incipiency and the practitioner will but pursue some such course as has just been indicated, he will occasionally be enabled to abort such diseases; but where this can not be done the severity may be very much lessened, the duration abridged, the suffering mitigated and the mortality reduced to the minimum.

It seems to me to be a grave mistake to assume that, because a case may not almost at once begin to convalesce, therefore the treatment is of no use.

I apprehend that too many, either unconsciously or otherwise, are looking for specifics, forgetting that often the disease germs have become so entrenched in the system and are being as rapidly propagated, that it takes time, patience and perseverance in the use of remedies to dislodge them and restore the damaged organism to a state of health.

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Internal medicine has long since passed the experimental stage, and it is gratifying to be able to state with confidence that the teachings, practice and experience of the profession, as a whole, furnish ample evidence of its true worth, nothwithstanding the occasional discordant note.

We have attempted, in rather a brief and hurried manner, to show that the various elements that are seemingly assuming to discredit and supplant are not succeeding and can not hope to succeed, as they are wholly inadequate to meet the various needs of the suffering masses.

Internal medicine has withstood the ravages of time, it has met the test of the ages.

Beginning with Hippocrates, more than four hundred years before the coming of the Son of Man, it has continued, constantly and surely to evolve, from a crude and empirical practice, to the rational, systematic science of the present.

Towering, as we believe it does, above all others and acknowledged in all civilized lands to be the foremost amongst the professions.

For twenty-five hundred years the suffering billions that have inhabited the earth have turned to it for relief.

The denunciations of fanaticism, the persecutions of supersitition and the shafts of envy, alike have failed to prevent its rise, its steady growth and wide dissemination.

Twenty-five centuries have witnessed the rise and fall of many a dynasty, many a kingdom and many an empire; have seen the passing of many methods to heal the sick, but internal medicine still endures.

Think you, then, that a failure could endure above such a host of wreckage and occupy the important position in society that the medical profession does at this time?

Internal medicine is not a failure, and will still endure, continuing its onward and upward march, meeting the demands of advancing civilization so long as time shall last.

Treatment of Insanity in General Hospitals.—D. R. Brower, Chicago (Journal A. M. A., July 14), for thirty years has been treating selected cases of insanity in the wards of general hospitals, with success sufficient to justify him in urging this plan on the profession generally. The method used is substantially that known as the Weir Mitchell rest cure, and the cases specially amenable to this treatment are the autotoxic and exhaustional ones. For the progressively degenerative types the only proper place is the special hospital for the insane. The rest cure should be followed by judicious exercise, congenial occupation, etc Details of the treatment are given.

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General Medicine.

The Bedbug as a Transmitter of Disease.—A. A. Girault, Myrtle, Ga. (Journal A. M. A., July 14), reviews the facts so far as known regarding the agency of the bedbug in the conveyance of disease to man, and while admitting, with Nuttall, that nothing has yet been definitely and experimentally proven, he holds that it is evident that the investigation has only just begun. This insect is under strong suspicion as regards relapsing fever, leprosy, bubonic plague, anthrax and tuberculosis, and the possibility of its agency in the spread of other diseases, such as diphtheria and syphilis, has been prominently suggested. Coplin has found that pure cultures of the typhoid bacillus could be inoculated from infected bedbugs and Girault finds that they are apparently fully as greedy for the blood of mice, which are suspected of being the carriers of some diseases, as they are of that of man. He holds, therefore, that considerations of health and self-defense, as well as of decency and personal cleanliness, bid us exercise caution against this very objectionable parasite.

Routine Urine Examinations.—M. H. Fussell, Philadelphia (Journal A. M. A., July 28), insists on the value of the routine examination of the urine. Even though albumin and casts do not always mean nephritis, their presence in the urine indicates that a vital organ is at fault, and that this fault must be duly considered in the diagnosis, prognosis and treatment. There are other conditions also to be made note of which are of the greatest importance, such as the presence of glucose, of pus, of blood and persistent or intermittent excessive amount, all of which are to be taken note of in the routine examination. He gives, as illustrating his view, his own experience for the past eighteen months, in which he has examined the urine of 763 patients, and found abnormalities in 15 per cent. He gives abstracts of the case histories of a few of these which proves, he thinks, that it is only by a routine examination that we can make more than a tentative diagnosis in 15 per cent. of all patients treated. To examine the urine only when symptoms point to a genito-urinary disease is to miss the diagnosis in many important cases in time to be able to give them benefit by treatment.

The Pediatric Outlook.—In the chairman's address before the Section on Diseases of Children at the recent meeting of the American Medical Association, Dr. W. C. Hollopeter, Philadelphia (Journal A. M. A., August 11), offers congratulations on the remarkable progress made in this specialty. Diphtheria has been robbed of its terrors, epidemics of scarlet fever and measles, which twenty years ago were looked on as inevitable calamities, are now considered as a reproach to the community permitting them, and infant mortality from artificial feeding has been largely checked by increased knowledge of food modification, percentage feeding and accurate adjustment of food to the individual child. With the elementary work in pediatry thus well done, we find ourselves facing new problems, and at every step shoulder to shoulder with the workers in general sociology. One of the future problems is that of the better education of mothers, another is the better municipal management of health matters by the public authorities, health protective laws for children, clean milk supplies, school inspection, etc. The enormous possibilities in the proper education and development of defectives are also mentioned, and we should have at least, he states, a judicial comprehension of the possibilities of the new science of eugenics, though society may not yet be fully prepared for their realization.

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WESTERN MEDICAL REVIEW

A JOURNAL OF MEDICINE AND SURGERY.

Published Monthly by WESTERN MEDICAL REVIEW COMPANY,
1238 O Street, Lincoln, Nebraska. Per Annum, $2.00.

The WESTERN MEDICAL REVIEW is the official organ of the Nebraska State Medical Association and is sent by order of the Association to each of its eight hundred members.

H. WINNETT ORR, M. D., EDITOR.

Entered as second-class mail matter at Lincoln, Nebraska post-office, under the Act of March 3, 1879.

VOL. XI. LINCOLN, NEB., SEPTEMBER 15, 1906. NO. 9.

DR. FRANCIS A. LONG was born in Northampton county, Pennsylvania, in 1859, was graduated from the Medical Department of the Iowa State University in 1882 and the same year located in Madison, Neb., where he has been engaged in practice continuously ever since. He has been an active worker in the state society for fifteen years and was one of the organizers and the first secretary (as well as the present) of the Elkhorn Valley Medical Society. Dr. Long has just been elected by the Board of Councilors to succeed to the presidency of the Nebraska State Medical Association, the office having been vacated by Dr. James L. Greene upon his removal to the superintendency of the Illinois Hospital for the Insane at Kankakee.

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J. W. BULLARD.

In an age when achievement and success are generally, or at least generally supposed to be, the result of hustle and push it is a pleasure to contemplate the career of a successful man who has done his work deliberately and without fret and excitement.

In the death of Dr. J. W. Bullard the medical profession of Nebraska has lost one of its most valuable members. Dr. Bullard always took part in the activities of the State Medical Association in a way that evidenced the sincerity of his interest in the welfare of his brother physicians. Many of the ideals for which the State Association stands and many of the accomplishments which the association has already attained are the results of Dr. Bullard's influence and industry. He was most faithful in attendance upon the sessions of the various societies of which he was a member and his illness during the past year caused him to be greatly missed from the meeting of the State Association in May. In spite of his absence, however, a most careful report of his work as councilor, such a report as was typical of the man himself, was submitted at the meeting and can be found in the records of the society.

Pawnee City has always been well represented in the affairs of the society, and the physicians of that locality as well as the members of the profession at large will feel bereaved by Dr. Bullard's death. The editor of the REVIEW feels keenly the loss of the kindly interest and cheerful assistance which Dr. Bullard always displayed in matters pertaining to the welfare of the journal which stands for the interests of the State Medical Association.

It is perhaps needless to say that, having been a good physician, Dr. Bullard was also a good man, and those numerous acquaintances who knew him in both capacities unite in regretting what seems to have been his early removal from among us.

DR. JAMES H. PEABODY—DIED SEPTEMBER 8, 1906.

Dr. James H. Peabody, of Omaha, was one of those who took part in the organization of the Nebraska State Medical Society in 1868 and for thirty-five years or more since that time he has been a

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constant and consistent laborer for the good of the society. For two years or more he has been in poor health. When the State Medical Association met in Omaha in 1904, Dr. Peabody was only barely able to attend the meeting and the impairment of his health has been graudually progressive ever since. During the many years of his practice in Omaha he has endeared himself to thousands of patients, and his influence upon medical practice and upon the medical profession will be felt as long as the history of medicine in Nebraska is read. His career in Omaha was marked by an intelligent interest and activity in political and public matters as well as in medical affairs. In 1897 he was made a member of the board of fire and police commissioners by Governor Holcomb. He was one of those steadfast medical citizens who contribute to the best development, not only of medicine and the medical profession, but of the communities in which they live and of the environments in which they are placed. He was a physician and a man of whom it may truly be said, "his part of the world was better for his having lived in it."

Notes and News.

Dr. A. L. Asa will locate at Brownville, Neb.

Dr. R. H. Sawyer has opened an office in Havelock, Neb.

Dr. B. A. Root, of Phillips, Neb., has recently been in Lincoln.

Dr. C. W. G. Dodge, of Hastings, Neb., has decided to move to Wyoming.

Dr. H. Campbell has opened an office at Havelock, Neb., with C. W. Piper.

The Highline Medical Society held its regular meeting August 22 at Curtis, Neb.

Dr. J. J. Metzinger, of Fremont, Neb., has returned from an outing in Colorado.

Dr. F. M. Neville, of Nebraska City, is taking a post-graduate course in Chicago.

Dr. Frank H. Wallace located permanently at Harrison, Neb., about September 1.

Dodge County Medical Society will hold a meeting at Fremont on September 13, 1906.

Dr. and Mrs. W. A. Goslee, of Auburn, Neb., made a trip to Minnesota by auto in August.

Dr. Tibbals, of Fairbury, Neb., has sold his practice to Dr. C. E. Leach, of Columbus, Neb.

Dr. J. M. Agee, of Valley, Neb., has returned from Nevada and taken up his old practice.

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DR. M. L. THOMAS, of Union, Neb., has located in Dubois for the practice of his profession.

DR. L. G. LEGGETT, of Nebraska City, Neb., will spend the month of September in Wyoming.

DR. WILL R. O'NEAL, who has been located at Lyons, Neb., has changed his home to Oakland, Neb.

THE Southwestern Iowa Medical Association held its annual meeting in Glenwood Thursday, August 16.

DR. W. H. JOHNSON, of Lincoln, Neb., was elected surgeon general of the G. A. R. at the recent encampment.

DR. WILLIAMS has concluded to discontinue his office at Havelock and attend all patients from University Place, Neb.

DR. HOUSER, of Arapahoe, Neb., went to Denver, Colo., August 20 to take part in the shooting tournament held there that week.

THE annual session of the Johnson County Medical Society was held at the home of Dr. C. H. Zeigler, in Vesta, Neb., recently.

DR. J. F. MCNULTY recently located at Sargent, Neb.; also Dr. J. J. Warta has relocated there after an absence of about eighteen months.

DR. W. COVELL, who has been practicing at Elm Creek, Neb., for the past few months, has moved to the country north of North Platte, Neb.

DR. EDWARD C. LYNCH, a recent graduate from Creighton Medical College of Omaha, has purchased the practice of a physician in Illinois.

DR. H. W. QUIRK, from Cleveland, O., has purchased the Crete Hospital from Dr. Breuer. Dr. Breuer will move to Chicago in the near future.

BURT, Cuming and Dodge County Medical Societies will hold a joint meeting at West Point, Neb., October 20, 1906, with a public meeting in the evening.

DR. HAL SMITH has sold his practice at Brownville, Neb., and will take a course in surgery at Chicago, Ill. He has not decided where his future location will be.

AT the convention of the republicans of the first senatorial district held at Humboldt, Neb., Dr. W. H. Wilson, of Table Rock, Neb., was unanimously nominated for senator.

DR. E. W. MARTIN, of Fremont, Neb., has returned from California where he has spent a couple of months with his wife who underwent an operation at Los Angeles, Cal.

DR. IRENE MORSE, of Laramie, Wyo., left about September 1 for Chicago, Ill., where she will take a post-graduate course. January 1 she will leave for Worcester, Mass., where she will assume a position in the Memorial Hospital.

DR. AND MRS. BARTHOLOMEW, who have for two years managed the present hospital at Broken Bow, are arranging to erect a new hospital building to cost not less than $8,000. They expect to have it ready for occupancy the first of the year.

THE board of councilors of the Nebraska State Medical Association held a meeting Monday, September 3, at Lincoln. The principal business was the election of Dr. F. A. Long, of Madison, to succeed President J. L. Greene, who has removed from the state.

DR. E. J. C. SWARD, of Oakland, Neb., was in Lincoln during the last week in August to attend a meeting of the state board of health. From Lincoln he went to Chicago, expecting to take a voyage up Lake Michigan to Milwaukee and thence to Burlington, Wis.

DR. H. WINNETT ORR, of Lincoln, has been appointed acting secretary of

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the Nebraska State Medical Association to serve during the absence of Dr. Wilkinson. The appointment was made by the president, Dr. F. A. Long, upon the recommendation of the Board of Councilors.

THE matter of providing a separate ward for the tuberculosis patients at the county hospital in Omaha was taken up at the last meeting of the county commissioners. No definite action will be taken until the board confers with the county physician and members of the hospital staff.

A STERILIZING plant to cost in the neighborhood of $1,500 is being installed in connection with the operating room at St. Mary's Hospital at Columbus, Neb. Several other improvements are contemplated, and the month of August will be devoted entirely to improvements at the hospital.

THE Custer County Medical Society held their regular annual picnic meeting at Ansley, August 14. A good attendance and a very pleasant time was had and a short program in the afternoon. Dr. F. C. Stokes, of Westerville, Neb., recently of Kansas, was in attendance, with his wife, and became a member.

THE faculty of Creighton Medical College held its annual midsummer meeting Wednesday, August 15, at Lake Manawa, the Council Bluffs members of the faculty acting as hosts of the evening. Dr. Seybert was in charge of the meeting. The party chartered a launch for the occasion and the greater part of the evening was spent in a cruise about the lake.

MEMBERS of the profession are warned against the operations of one G. E. Simpson who is fraudulently taking orders for Surgery, Gynecology and Obstetrics published by the Surgical Publishing Company of Chicago and under the managing editorship of Franklin H. Martin, M. D. Many doctors have already been victimized by this man to the extent of paying cash for orders for the journal or giving him checks payable to his own order; and this notice is published in the interest of the profession and for the purpose of putting a stop to his further operations. Secretaries of local medical societies are requested to warn the members of their societies against his operations.

DR. A. D. WILKINSON, secretary of the Nebraska State Medical Association, will leave Lincoln this month on a trip around the world. He supplies the following itinerary of his trip: Leave Lincoln September 21, 1906; sail from San Francisco October 5, 1906. Lincoln rail to San Francisco, thence by Pacific Mail Steamship Co. (Mongolia) to Honolulu; thence to Yokohama, Tokio, Enoshima, Komakura, Nikko, Kodsu, Odowara, Miyanoshita, Nagoya, Kiota, Nara, Osaka, Kobe, Nagasaki, Japan; Shanghai, Tientsin, Pekin, Hankow, Nankin, Hong Kong, Canton, Macao, China; Manila; Saigon, Bankok, Siam; Singapore, Malay Peninsula; Batavia, Djokjakarta, Surabaya, Java; Penang; Colombo, Kandy, Island of Ceylon; Tuticorin, Madura, Tanjore, Trichinopoli, Madras, in Southern India; cross Indian Ocean to Rangoon, up to Mandalay, back by Irrawady River to Rangoon, Burmah; thence by steamer to Calcutta, to Darjeeling, Benares, Cawnpore, Lucknow, Agra, Delhi, Jeypoor, Bombay, in India; Aden, Arabia; thence through Red Sea to Port Said; Cairo, up the Nile to Luxor and Asouan, back to Alexandria in Egypt; thence to Holy Land, Jaffa, Jerusalem, Bethlehem, River Jordan, Dead Sea, Beyreut, Baalbec, Damascus, Smyrna, Ephesus; thence to Constantinople, Turkey; Athens, Corinth, Patras, in Greece; thence to Brindisi, Naples, Italy; Palermo, Syracuse, Messina, Island of Sicily; back to Naples, Rome, Florence, Pisa, Venice, Milan, Genoa, Italy; Nice, Monaco, France; Geneva, Berne, Interlaken, Lucerne, Lusanne, Zurich, Switzerland; Salzburg, Vienna, Prague, Dresden, Berlin, Frankfort; trip on the Rhine to Cologne, Brussels, Paris, London; touring England, Scotland, Ireland and possibly Russia, Norway, Sweden, Spain, Portugal, and home about October 1, 1907. Dr. Wilkinson will receive mail during his absence

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at the following times and places: San Francisco, Cal., October 1 to 5, 1906; Yokohama, Japan, Grand Hotel, October 22, 1906; Nagasaki, Japan, Nagasaki Hotel, November 22, 1906; Hong Kong, China, Hong Kong Hotel, December 15, 1906; Manila, P. I., general delivery, December 20, 1906; Hong Kong, China, Hong Kong Hotel, December 25, 1906; Singapore, Malay Peninsula, Raffles Hotel, January 20, 1907; Colombo, Island of Ceylon, Thos. Cook & Son, February 1, 1907; Calcutta, India, Thos. Cook & Son, February 15, 1907; Bombay, India, Thos. Cook & Son, March 15, 1907; Cairo, Egypt, Thos. Cook & Son, April 1, 1907; Naples, Italy, Thos. Cook & Son, May 1, 1907; London, England, Thos. Cook & Son, July 1 to August 15, 1907; Chicago, Ill., 407 Monadnock Block, September 15, 1907; Lincoln, Neb., October 1, 1907.

Fourth of July Injuries and Tetanus.—The Journal A. M. A. issues its fourth annual report on this subject: There were 89 cases of tetanus resulting from Fourth of July injuries this year, of which 75 cases were reported fatal. Three patients recovered, and in 11 cases the results are not known. There were 83 deaths from other causes, or a total of 158 deaths. There were 5,308 non-fatal injuries, making 5,466 dead and injured, an increase over last year of 290. Tetanus seemed to have been somewhat more prevalent than in previous years, since, although the cases due to fireworks were fewer, there was an increase in the number of cases due to puncture wounds from nails, splinters, crushed wounds, etc. Antitoxin was more generally used than ever before, hospitals having been provided with a liberal supply by health authorities. Some cities claim to have practically prevented tetanus by its careful use. Its chief value, apparently, is as a prophylactic. After the main symptoms of lockjaw have begun, it seems to have very little value, since in only three cases out of eighty-nine are patients reported to have recovered. In one of these, which was very persistent, antitoxin was administered as often as ten times each day with recovery as the result. The duration in this case was about thirty days between the time of the accident and the subsidence of the symptoms.

Truths About Sleep.—Norman Bridge, Los Angeles, Cal. (Journal A. M. A., September 1), considers that the teaching as to the necessity of a large amount of sleep is often erroneous and leads to overdrugging by powerful and somewhat dangerous medicines. He lays much of the evil to the mental attitude of the sufferer. The horrors of insomnia are but slightly due to want of sleep and very much due to the fear of sleeplessness with which the patients are nearly always afflicted. If they could go to bed and feel that they do not want to go to sleep or did not care whether they slept or not, sleep would probably come before they were aware of it and last the night through. The notion that we go to bed for the purpose of sleeping is a one-sided one. It is bodily rest that we require as much as brain rest, and this bodily rest need not be accompanied with sleep all the time. Even children do not need so much sleep as has been supposed. We should put ourselves in a position of rest, which of itself, physiologically, induces sleep. We should avoid the irritations, noises, bad air, cold feet, overloaded bowels, etc., which tend to keep us awake and to prevent proper physical rest, and then sleep comes of itself usually and almost always in sufficient quantity. Five or six hours may be as good as eight for some people.

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Original Articles.

THE NEBRASKA STATE HOSPITAL FOR CRIPPLED, RUPTURED AND DEFORMED CHILDREN—THE INSTITUTION: ITS ORIGIN, DEVELOPMENT, AND NEEDS.*

PART I.

JOHN PRENTISS LORD, M. D., OMAHA, NEB.

The first agitation for a state hospital for crippled children was started by Dr. Lenore Perkey, of Lincoln, in a paper read before the State Homeopathic Medical Society at Omaha in 1902. Friends

Fig. 1.

Fig. 1.—This illustration is presented to show the population of the hospital August 1, 1906. Four or five of the patients were unable to appear in this picture but twenty-six of the patients are included as well as (from left to right on top row) Dr. Lord, Miss Rogers, Mrs. Stahl, and Miss Hardwick, head nurse.

of such a measure were soon found and a bill drawn which was presented by Hon. J. H. Casebeer, of Blue Springs, to the legislature of 1905. The bill named $25,000 as a sum to be appropriated for the establishment and maintenance at the Home for the Friend-

* Read before the Nebraska State Medical Association, Lincoln, Neb., May 1 to 3, 1906.

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less a Hospital for Crippled, Ruptured and Deformed Children, or those suffering from disease likely to result in deformity. In his message to the legislature Governor Mickey had recommended that the Home for the Friendless be moved to Milford, where there was plenty of land, adequate buildings and room to spare, for the orphan children, wards of the state. This did not meet with favor, however, and the Home was retained at Lincoln. Various influences combined to reduce the proposed amount of appropriation and the $25,000 asked for the establishment and maintenance of the Crippled Children Hospital for two years was made $10,000 instead, and the bill passed. The ultra conservatives attached a provision for the closure of the institution in case it became apparent that a deficit might occur before the expiration of the two-year period. The funds appropriated were made available July 1, 1905. The law provided that the superintendent should be an orthopedic surgeon. The writer having given perhaps more than the usual attention to that subject for several years in teaching and practice, considered himself eligible, asked the endorsement of his professional friends and was appointed by the Honorable Board of Public Lands and Buildings May 18, 1905. Dr. H. W. Orr was chosen by the superintendent as his assistant. Alterations, additions, repairs, furnishings, apparatus, equipment, and supplies required approximately $5,500, or more than one-half of the total appropriation. The building was not ready for patients until October 1, 1905, though the first patient was admitted September 21, 1905. Miss Anna E. Hardwick, a graduate of, and five years employed in, the Hospital for Ruptured and Crippled in New York city, was secured as head nurse, she having been recommended by Drs. Gibney, Townsend, Whitman and Taylor. Having so experienced a person to carry on this important part of the work of the institution has been a great factor in rendering the work efficient from the start. The number of patients October 1 was six; November 1, twelve; December 1, fourteen; January 1, seventeen; February 1, twenty; March 1, nineteen; April 1, twenty-five; May 1, twenty-eight. The cases may be considered fairly representative, as will be seen by the clinical report by the assistant superintendent. Some of the cases are of extraordinary interest from an orthopedic standpoint. The number of cases treated and the character of the work compares most favorably with that of the two other state orthopedic hospitals, Minnesota and New York, during their first years. It is confidently expected that the results obtained will increase the confidence of the public, serve to render more wide-spread the knowledge of its existence

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and availability, and increase its usefulness and beneficence to the utmost. No greater services in this hoped-for growth can be secured than through full knowledge and the co-operation of the medical profession. The expenditures upon the building were much more than contemplated at the outset, and to put it in the condition that it should be, with elevator, porches on all floors,

No. 2. No. 6.

Patients Nos. 2 and 6 are of interest because of having been two of the earliest patients at the hospital. Patient No. 6 is the little girl referred to in the clinical report as coming from York county. While she can never be made well she is still one of the chief beneficiaries by the establishment of such an institution, inasmuch as she is being educated so that she can accomplish much in spite of her hopelessly crippled condition. Patient No. 2 came from Omaha with drop-foot following infantile paralysis of the right leg. In the illustration she is shown with the right leg in plaster of Paris following an arthrodesis for fixing the ankle-joint. This operation does away with the dragging of the foot and greatly improves her walking.

further alterations and repairs, will require an additional outlay of $10,000. Special orthopedic appliances and apparatus are needed. Sufficient funds should be had to provide teachers for the backward and bedridden children. A manual training or industrial department should also be established, where knowledge of the

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use of tools, typesetting, typewriting, printing, clay modeling, wood carving, designing, drawing, basket weaving, sewing, etc., may be taught. We have many bright children capable of acquiring a good general education who could be taught certain occupations suitable to their physical defects. The state has a responsibility beyond attention to the physical defects of these children. Unless provision is made by the state for making these children self-sustaining, our institution will be obliged to recommit some of them to the poorhouses from whence they came, or to homes which are perhaps worse. Our institution has four or five children who are incurable and all but one are capable of receiving a good education, but these will always be dependent unless provided with suitable occupations. The state has only begun its responsibility, therefore, when it has finished the surgical and mechanical treatment of deformity.

All children, rich or poor, should be taught to work. The state should provide useful developmental employment for the children over whom it has assumed control, therefore, for apparent reasons, health, hygiene, morals, etc. Adequate housing, ample grounds, including gardens, a workshop and school should be provided in order that the function of the state may be fully and adequately performed. This must be done, not only by making the lame walk, but by enabling them to stand alone industrially and morally, and live, perchance, happily.

It has been suggested by some that institutional care of these children costs too much and that they can be more cheaply cared for by paying their board in a regular hospital, where they might perhaps receive gratuitous medical and surgical care. Minnesota pursues this plan at present. An independent state orthopedic hospital for Minnesota is already in contemplation and will undoubtedly replace the present unsatisfactory method.

The superintendent of the Crippled Children Hospital, Dr. Gillette, of St. Paul, Minn., makes this statement to the writer in a personal letter: "When a state institution for crippled and deformed children places the children in a general hospital as boarders they are taking a step backwards. The aim should be to have an independent orthopedic state hospital, for the general hospitals are not able to do the work justice. The institution should be especially equipped with orthopedic appliances. In short, it should be your aim to have a state hospital for indigent, crippled and deformed children and connected with it a school and an industrial department. This is the aim and object of the institution primarily, and any deviation from this will only meet with failure."

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PART II.

H. WINNETT ORR, M. D., LINCOLN, NEB.

When the bill for the creation of a hospital for the crippled and deformed was before the legislature and governor for consideration in 1905 the statement was made several times by members of the legislature that the merits of the bill depended entirely upon

No. 23—Fig. 1.

No. 23—Fig. 2.

Patient No. 23.—Genu valgum. Received at the hospital January 9, 1906. His general condition was improved by careful attention to diet and medication and the right leg operated upon (osteotomy, lower end of femur) February 12, 1906. He was kept in a plaster dressing until April 15 and discharged from the hospital in the condition shown in the second illustration May 15.

the need for such an institution. Governor Mickey himself said, and his sentiment was several times echoed by others, that if it could be shown that there were twenty-five children in Nebraska in need of treatment in such a hospital he would heartily favor the creation of such an institution.

If the conduct of the hospital during these first seven months,*

* October 1, 1905, to May 1, 1906.

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therefore, has been of value in no other way, it has fully demonstrated that there are in Nebraska not merely twenty-five but a considerably larger number of children who are in need of care in an institution devoted to the treatment of the ruptured, crippled and deformed. I feel sure that I am safe in saying that there are in the city of Lincoln alone not less than twenty-five ruptured, crippled or deformed children, members of families in destitute circumstances, who should at the present moment be patients in our institution.

There is still prevalent in Nebraska, as elsewhere, some senti-

No. 36—Fig. 1.

No. 36—Fig. 2.

ment against placing children in a hospital. I hope you will pardon me if I digress here to say that it would be well not only for many children but also for the community and the state if the rights of the child to hospital care were duly considered by the law. The wishes or vagaries of selfish or ignorant parents in regard to these things should be overcome legally and a child crippled or deformed should certainly at times be forcibly impressed into an institution for such treatment as physicians and a beneficent commonwealth have not only decided is for his good but for which the means have been provided.

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The law does say that parents must permit and to a certain extent provide for a certain amount of education for every child able to attend school. Officers duly empowered by the law may enter the precincts of the home (by courtesy always called sacred) and compel all children of a certain age to attend school. Yet if

No. 35. Fig. 3. No. 36.

Patients Nos. 35 and 36 were sister and brother, both of whom had suffered from rickets. The little girl had extreme bowlegs—unfortunately no photographic record was preserved. Her condition following the operation, however, is shown very nicely in the third illustration. The first and second illustrations show the condition of the boy before the operation. He had an extreme anterior and slightly lateral curvature of the bones of the leg. In correcting these by osteotomy it was necessary to remove a wedge-shaped piece of bone before the two fragments of the tibia could be brought into a straight line. In the third illustration his condition is shown eight weeks after the operation, a very satisfactory result having been obtained except that there was a slight persistence of the knock-knee.

in that same home a child is found with an incipient tuberculosis of the hip which threatens his life or manhood there is no law by which the parents may be compelled to provide proper medical care or by which parents opposed to or unable to provide such care may be temporarily relieved of the custody of such a child while those better fitted are made his guardians.

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The state is slow to realize that it has a great responsibility for the development of its children not less than for the conduct of its adult citizens.

No. 40—Fig. 1.

No. 40—Fig. 2.

Patient No. 40 is a young man 17 years old who came to the hospital for treatment March 25, 1906. The character of his congenital deformity is well shown by the first three illustrations. In spite of his extreme deformity of the foot and a shortening of the leg of four and three-fourths inches he has always been able to take part in the ordinary games and sports. At the time of admission to the hospital the effort on his part to maintain his body in an erect position was beginning to have a deforming effect on the spine and chest, and the character of his gait was a serious handicap to his engaging in any of the ordinary occupations. Correction of the deformity was accomplished by double osteotomy of the bones of the leg April 8, 1906. By this operation the lower leg and foot were rotated until the toe pointed forward to normal position. On July 12 a second operation was performed to further straighten the foot and the toe. His condition about August 20 is shown by illustration Fig. 4. An orthopedic shoe is now being prepared which will add the necessary length to the short leg and enable him to have a nearly normal gait.

Some of the parents who have applied for the treatment of children in our hospital have later for one reason or another decided that they could not place the little ones in the institution. Some have objected to the plan of treatment proposed and have taken

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their children away to receive no treatment at all. Others have taken children home to die rather than submit to the inconvenience which they (the adults) would be obliged to endure as a result of the length of hospital residence necessary to bring about a satisfactory result.

No. 40—Fig. 3.

No. 40—Fig. 4.

The following report will show, however, that in the first seven months fifty-eight patients have presented themselves at the hospital, and of these forty-two have become resident patients for a longer or shorter time. The table will show also that these patients present a considerable diversity of orthopedic conditions. In fact the variety of these patients from a purely clinical standpoint compares favorably with what might be found in any larger orthopedic clinic.

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Diagnosis	Case number †	No of cases	Males	Females	Over 21 years	14 to 21 years	Under 14 years	In-patients	Out-patients	Operated upon	Plaster Paris dressings	Cured	Improved	Unimproved	Died	Under treatment
Abscess—tuberculous	11, 13	2	2	..	1	..	1	2	..	2	8	..	..	..	..	2
Appendicitis	12	1	1	..	..	..	1	1	..	1	..	1	..	..	..	..
Bow legs	33, 34	2	1	1	..	..	2	2	..	2	6	..	..	..	..	..
Cleft palate	20, 24	2	..	2	..	..	2	2	..	2	..	1	..	..	1	..
Club foot, congenital	4, 9, 10, 17, 44, 49	6	6	..	..	2	4	3	3	5	54	..	..	..	..	6
Ear—adherent external	1	1	1	..	..	1	..	1	..	1	..	..	..	..	..	1
Fractures, old, with deformity	53, 57	2	1	1	2	..	..	..	2	*	*	*	*	..	..	..
Hernia, inguinal	1, 48	2	2	..	1	1	..	1	1	1	..	1	..	..	..	1
Hernia, femoral	39	1	..	1	1	..	..	1	..	1	..	..	..	..	..	1
Hip, congenital dislocation	3, 55	2	1	1	..	..	2	1	1	1	..	..	..	..	..	2
Ichthyosis	1	1	1	..	..	1	..	1	..	..	..	..	..	..	..	1
Knock knees	22	1	1	..	..	..	1	1	..	1	..	1	..	..	..	..
Paralysis, infantile	2, 5, 7, 8, 14, 35, 40, 47, 51, 54	10	4	6	..	2	8	7	3	5	17	..	..	..	..	10
Phimosis	19, 22	2	2	..	..	..	2	2	..	2	..	2	..	..	..	..
Rickets	6	1	..	1	..	..	1	1	..	..	..	..	1	..	..	..
Spastic paralysis	16, 18, 19, 29	4	3	1	..	..	4	4	..	2	..	..	..	..	1	3
Spina bifida	5	1	..	1	..	..	1	1	..	1	..	..	..	..	..	1
Spine, lateral curvature	21, 35, 41, 56	4	3	1	..	..	4	2	2	..	3	..	..	1	..	3
Tuberculosis of ankle	52	1	1	..	1	..	..	..	1	..	..	..	..	..	..	1
Tuberculosis of axillary glands	38	1	..	1	1	..	..	1	..	1	..	1	..	..	..	..
Tuberculosis of bones, multiple	37	1	..	1	..	..	1	..	1	..	*	*	*	*	*	..
Tuberculosis of knee joint	13	1	1	..	1	..	..	1	..	1	..	..	..	..	..	1
Tuberculosis of hip joint	11, 28	2	2	..	..	2	2	..	1	..	..	..	..	..	..	2
Tuberculosis of sacroiliac	58	1	1	..	1	..	..	..	1	..	..	..	..	..	..	1
Tuberculosis of spine	23, 36, 50	3	1	2	..	1	2	2	1	..	..	..	..	..	..	3
Unclassified	27, 30, 31, 32, 42, 43, 45, 46	8	2	6	4	3	1	8	..	5	..	2	1	..	2	3
Totals		63	37	26	13	11	39	47	16	35	88	11	2	1	4	42

Counted three times, 1; counted two times, 6; counted one time, 48.

* No treatment.

† On account of a slight error in the first record list the figure numbers do not correspond with the case numbers given here.

The above table is perhaps fully self-explanatory. It shows the seven months' totals of the hospital work in all of its phases.

Two or three of our patients, later to be described, have presented conditions which would be considered rare even in those large hospitals where hundreds of patients are treated every month. In general, however, the percentages will be found to conform to those encountered in other clinics. For example, the largest number of our patients have been those crippled or deformed as a result of

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infantile paralysis. Fourteen patients of this class have been received at our hospital and eleven became resident patients. Six patients have come to the hospital suffering from club foot of whom four remained for treatment. There have been eight patients with tuberculosis of the bones or joints of whom seven have received treatment. Three patients have been received at the hospital suffering from hernia; two of these were relieved by operation and one by the application of a truss. Two patients have been received suffering from congenital dislocation of both hips. Strangely

No. 42—Fig. 1.

No. 42—Fig. 2.

Patient No. 42.—Double congenital dislocation of the hip. This patient was received at the hospital March 26, 1906. On account of acute illness no operative procedure was attempted until April 23, at which time both hips were reduced by the Lorenz method and the patient placed in a plaster dressing as shown in the second illustration.

enough both these patients were received with a prior diagnosis of spinal disease, while a third case now in the hospital for Pott's disease was sent in with a diagnosis of congenital displacement of both hips.

One of our most interesting cases from all standpoints is little Carrie Bacon, whose extremely paralyzed condition and whose

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pathetic history were mainly responsible for the activity of some of those who took part in the movement to secure the establishment of such a hospital. This child was born with spina bifida and was said to have been operated upon when a few days old for the relief of her condition. She has always had an almost complete paralysis of both lower extremities with incontinence of urine and feces. She came to the hospital from the York county poor farm. When admitted she was found with the right leg amputated at about the junction of the middle and lower thirds of the tibia. The flaps had failed to unite following the amputation and the stump presented a large granulating and suppurating surface. The perineum and the buttocks were badly excoriated and ulcerated from injury by her method of locomotion and the constant irritation of dribbling urine and discharging feces. Two weeks after admission the right leg was reamputated six inches higher up and the wound healed by primary union. The patient now before you would hardly be recognized by those who saw the wan-faced little girl admitted to the hospital seven months ago. During the more recent weeks of her hospital residence she has been enabled by means of a wheel-chair to take an active part in the work of the hospital. The plaster-of-Paris bandages which she rolls are as well made as any bandages we have and she has more than once discharged satisfactorily the duties connected with placing the smaller children properly in their beds for the night. While the prospect of enabling her to walk is somewhat remote it is reasonably certain that, barring accidents, she may become a useful member in whatever community she is placed. She herself is quite determined that she can succeed as a ward nurse.

Another interesting patient is Joy K. At the time this child was born, now fifteen years ago, his skin was very dark and scaly. The hands and feet were deformed and the eyes, nose and ears were only barely distinguishable as features of his physiognomy. The entire body was swollen and the child seemed to be in constant pain. On admission to the hospital the skin of the entire body was covered with dry scales and dark brown in color. The ears were glued tightly to the sides of the head. The eyelids could not be approximated and were badly inflamed. There was almost no hair and it was impossible for him to make any alteration in his facial expression as the skin would neither move nor wrinkle. The hands and feet were badly deformed as you can still see and he had a right congenital inguino-scrotal hernia. It was six months after his admission and only after very great improvement in the condition of the skin that surgical measures to cure the hernia and to

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release his ears to make the wearing of glasses possible was deemed advisable. In spite of the extremely unfavorable condition of the skin his operation for the radical cure of the hernia was a complete success. There has also been marked improvement in his general condition. The total amount of improvement which we may finally be able to obtain can only be surmised, but it seems

No. 49.

Patient No. 49.—Walter Martin, aged 2½, when he came to the hospital on April 3, 1906; is suffering from congenital lateral curvature of the spine. This is a rare condition; in this case probably due to a malposition in the uterus. Before he came to the hospital he had remained entirely helpless, unable to sit or stand and hardly able to move about in the bed. He has been maintained almost continually in a plaster jacket since May 8 with the result that he can now walk without assistance and can sit up for long periods without becoming tired. He is also learning to talk since coming to the hospital and gives promise of developing into an independent individual.

reasonably certain that with proper training he can yet be made a useful citizen instead of the badly deformed cripple he would otherwise certainly have been.

The patients received with tuberculosis have without exception shown rapid and gratifying improvement. In their treatment an effort has been made to follow the dictum that only those surgical and therapeutic measures should be used which would least inter-

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fere with an outdoor life. For some time the tuberculosis patients have had beds in the solarium at the south end of our building. Even in severe weather they have remained in bed in this practically outdoor ward. The windows have not been tightly closed at any time since the first of the year, and yet at no time has any patient occupying a bed in the sun room shown any indication of what is commonly known as a cold. Almost all when admitted were having a slight elevation of temperature in the afternoon. It is now exceptional for any patient to have any febrile disturbance whatever.

This outdoor treatment is one of the measures which is apt to meet with disapproval on the part of parents or friends who have children for admission to the hospital. In one instance at least the prospect of placing a patient in a bed almost outdoors seems to have been the means of frightening away those who were responsible for a child who ought by all means to have been admitted to the hospital.

Our records will show that a larger number of our patients have been treated surgically than at other orthopedic hospitals. This has been done for two reasons. In the first place the superintendent and orthopedic surgeon has been for many years in the practice of general surgery. He found it easy, therefore, to apply those surgical procedures which a man more familiar with the mechanical side of orthopedics might disregard in the treatment of such cases. In the second place it was necessary to have due regard for the somewhat meager appropriation allowed by the last legislature for the conduct of the hospital. Surgical correction of these deformities with the subsequent application of plaster of Paris was decided upon in order to obtain results more promptly than to try to secure the same results by the application of braces or other mechanical appliances. There was saved, therefore, not only the expense of these mechanical appliances, which for our cases would have amounted to many hundreds of dollars, but in several instances at least a long residence in the hospital was made shorter than would have been possible under mechanical treatment. A report of the operations will show that in no instance was any surgical procedure used in lieu of the application of a brace followed by any untoward result. The only two fatalities to report for the period were of patients who were not suitable for mechanical treatment.

Perhaps the most important surgical procedure in the history of the hospital thus far was the operation performed on Gertrude D. This patient, aged 17, had an attack of infantile paralysis when 12 years old. Following this she had an almost complete loss of use

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of the lower extremities. Strength gradually returned, however, to such an extent that she was able to get about on crutches using the left leg. The right leg has always dragged and been of no use whatever to her. The quadriceps extensor group was paralyzed in both thighs and on the right below the knee complete paralysis with flail foot existed. Even when the foot was held forward and steadied any attempt to bear the weight on the right leg resulted

No. 60—Fig. 1.

No. 60—Fig. 2.

Patient No. 60.—Genu valgum. A more severe case and one of longer duration than patient No. 23. In this patient there was serious deformity with impaired locomotion. Both patellæ were dislocated to the outer sides of the knee-joints. Age nine years. Admitted to the hospital May 3, 1906. Operation May 14 and discharged much improved, as shown in the second illustration, August 5, 1906.

in the knee breaking forward so that it was impossible to use the leg at all. A surgical procedure was attempted in this case with a view to fixing the ankle-joint, which was done by arthrodesis, and of furnishing such power to the quadriceps that the weight could be borne on the right leg without the knee giving away. The arthrodesis operation was performed in the same manner as that for our other patients. The joint surfaces of the lower extremity of the tibia and of the astragalus were exposed and all articular

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surfaces carefully shaved off. These shaved surfaces were then carefully approximated in the position in which it was desired to have the foot maintained and the foot kept in a plaster-of-Paris dressing for three months. The operation about the knee consisted in exposing the quadriceps tendon by an incision on the anterior and external aspect of the thigh. The tendons of the biceps and the sartorius and semimembranosus were then exposed by long incisions on the posterior and outer and inner sides of the thigh. These three were all made long incisions, being about six, eight and ten inches respectively. The tendons exposed behind the knee were then divided at their insertions; the biceps tendon having been split longitudinally, one-half of it with the other detached tendons was carried forward under the superficial fascia to be sewed in place on the anterior surface of the quadriceps extensor tendon. The external wounds were closed and the entire lower extremity put up in a plaster-of-Paris bandage. Now at the end of about five months this patient is walking with only the assistance of a cane for the past week or two and her rapid progress so far indicates that a very satisfactory result will be obtained. This result is extremely gratifying when one remembers that it had been five years since any use whatever had been made of this paralyzed extremity.

Four patients have been operated upon for gross deformities of the lower extremities. In all of these cases there was one or more osteotomies with the deformed member straightened and maintained in position with a plaster-of-Paris dressing until bone union had occurred. Two patients operated upon by the Lorenz-Hoffa method for the bloodless replacement of congenital dislocation of the hip are, of course, still under treatment with the final result undetermined. In all thirty-two operations have been done.

In commenting upon the work of the hospital thus far it is only fair to say that both the surgical work and the number of patients received have been reduced by the fact that for a period of weeks we were obliged to suspend all activity in those directions while we cared for a small epidemic of scarlet fever. In all we had five cases of scarlet fever and a quarantine was maintained over a period of seven weeks. All of the patients recovered with the exception of a 12-year-old girl who was the first patient in the second stage of our epidemic. She developed the disease one week after an operation for cleft palate and apparently recovered from the scarlet fever. The infection of the nose and throat proved resistant, however, and there was marked absorption with a development of septicemic symptoms. A little more than two weeks after her first

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infection she died with all the indications of septicopyemia. Another patient with cleft palate operated upon at nearly the same time made an uneventful and complete recovery.

Since writing the above three other patients have been accepted

No. 62.

Patient No. 62.—This patient was received at the hospital May 20, 1906, and her photograph is presented to illustrate the method of treatment for her condition—Potts' disease. She rests on a Bradford frame, bent at a suitable angle to correct the beginning lordosis and has a separate extension applied to each leg about four or five pounds to each. The foot of the bed is raised six inches and the patient maintained in this position. She has been on the Bradford frame now for about three months and has not only endured her confinement remarkably well but is much improved in her general as well as her local condition.

at the hospital all in different stages of infantile paralysis. One outpatient has also been presented at the hospital with tuberculosis of the hip-joint of six months' standing. A point which we hope to impress upon all physicians at this time is the importance, not only of early diagnosis in all these cases, but prompt and long-continued, skillful care in order to save to these little patients their lives and their manhood and womanhood as well.

DISCUSSION.

DR. VON MANSFELDE, Ashland: In the first place I wish to say a word in regard to the home for the crippled children. I had the pleasure a month or two ago to go through the institution and examine almost every patient at that institution, and I want to say to you that it is not in the province of human nature to say anything too much in praise of that young institution.

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I would like to ask Dr. Ridlon one question, and that is, how it is possible to allow a limb to remain in a cast for from four to six months and not have occasionally a case of ulceration when the cast is taken off. I am asking that question because I am a living example of such a result. You have all seen me go around limping for thirty years. It is the outcome of ulceration from a cast on my limb. I desire to thank the traveler from abroad for what he has told us and for the manner of the telling.

DR. MOORE, Omaha: It is certainly a reflection upon the Christian people and so-called charity of a large state like Nebraska that an institution like the one which has been described, this home for crippled, should go through with an appropriation of only $10,000 to run it for two years. It ought to be five or six times that amount, and then it will be accomplishing nearly what it should, rendering these poor cripples self-supporting instead of objects of charity through their entire lifetime. I trust that if any doctor enters the next legislature he will have ample time from other duties such as electing a senator to give some attention to these institutions of our state and appropriate a sufficient amount of money and in a manner creditable to a state like Nebraska. The cases as shown here speak for themselves and the success that these three have met with is very commendable. In the closing remarks of Dr. Orr I would like to have him tell us what is his diagnosis of the young boy and the course of treatment pursued. In regard to the remarks of our friend from Chicago they are right to the point, and while my treatment and experience as a general practitioner is limited, I feel his course is one that would be met with very good success. Instead, however, of deferring the treatment of club foot of an infant until he is able to walk, I believe it is the better course to pursue that as soon as the mother takes charge of the child. She should be instructed in the proper management of this deformed foot so that as the child grows the foot can be molded and by the time the child is able to stand further operating can be performed if necessary. I think a great deal may be accomplished in this direction.

DR. WILSON, Table Rock: Just a word. The doctors seem to think it a reflection upon the people of this state that so small an appropriation was made for the founding and maintenance for two years of this institution. I wish to say that I am of the opinion that many of the gentlemen are not familiar with the difficulties in the way when it comes to getting appropriations for everything. They are perhaps not aware, or forget, that the floating debt is over $2,000,000, which is far in excess of the constitutional limit. The necessary appropriations, to carry on the state government and to maintain the state institutions already in existence, are very large, so large that the entire revenue is hardly sufficient to meet them, and there is always a clamor for increased appropriations. Again, the people of the state, that is the laity, are not educated up to the standard of the medical profession in regard to the value of orthopedic hospitals and other things pertaining to public health. Another thing, the medical profession, as a rule, draw their garments about them like the Pharisee of old, fearing they will be contaminated if they come in contact with politics. I call your attention to the fact that the mass of physicians take little or no interest in politics, then they come down here complaining and wondering why they get such scant recognition at the hands of the lawmakers. If you would be duly recognized in these things then arouse and make your influence felt in a political way. In the last session of the legislature there were only four members of the medical profession in both houses of 133 members. We labored hard as we knew how to get the bill passed carrying an appropriation of $25,000, but in view of all that had to be contended with we congratulated ourselves in getting the bill through at all, believing if we could but get the institution started it would commend itself to the people by showing how beneficial it was, and they would then be more willing to contribute liberally to its support. In conclusion, let me emphasize the fact that it is not to be won-

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dered at that our state should make so small an appropriation to start the institution when we remember that of all the old and rich states but two others have orthopedic hospitals. The real wonder is that our state has made the start it has, and I congratulate the management upon the splendid showing it has made with so small capital.

DR. DILLON, of Auburn: I believe that the remarks of the last papers were very much to the point, not only regarding this institution for crippled children but on many other matters of interest. In other words, it is "up to the doctors" to influence their representatives in the legislature if they expect to get any appropriation in the future for this institution as well as the others.

DR. ANDREWS, of Holdrege: I am much pleased with the remarks of Dr. Wilson in regard to the influence that must be brought to bear if we expect to carry on the institution that has been recently established and have funds with which the work can be done well and creditably by those in charge. If in every county in the state the medical profession would get together and go to their representatives and senators and lay the matter before them, and insist that this institution be considered among the other institutions of the state, and show the importance of having these children taken care of, I know it would do some good. If we go about it in the right manner I can see no reason why we cannot have ample funds with which to continue the institution. Let each one make himself a committee of one and see that something is done in this line.

DR. LORD (closing the discussion): I have little to add. I wish to thank the members of the association for the kind consideration which they have given this matter in which Dr. Orr and myself are so enthusiastic, and we trust to merit your further approbation. I was particularly pleased with the instructive talk of Dr. Ridlon. It fairly bristled with the individuality of the man, and I think he has offered some very valuable suggestions.

DR. ORR (closing the discussion): I wish to say in the first place I desire to extend my personal thanks to Dr. Ridlon for coming here, and I wish also to emphasize the importance of creating public sentiment in favor of this institution. It is now an example of what may be done by even a few. The institution was created as a result of the efforts of not more than fifty people altogether, and it serves to show what just a few may do.

DR. JOHN RIDLON (closing the discussion): You doctors are to be congratulated upon having this institution in the state. Actually I feel ashamed that we do not have such a one in Illinois. You are third in the Union to have established such an institution and you ought to be congratulated for it. Minnesota was the first to establish such an institution and New York second.

As to Dr. Orr's suggestion of compulsory commitment of the children in the state, I should not favor that. I have had a great deal of experience in that line and it is best to let the people do as they desire in that matter. I am sure when they see the results these gentlemen are having there will be no trouble in getting your cripples to come. In regard to treating children in a special institution, I served ten years in the St. Luke's Hospital in New York and I treated cripples there, but I cannot have the same success there as I can in a special institution.

One of the gentlemen questions the wisdom of letting the infants wait until they walk. I agreed once with this view and did for many years, but now I find that if allowed to wait they tread their way straight and it saves a great deal of trouble. As to ulceration. In putting a plaster cast on a fractured limb I first cover the limb with a sort of stockinette and underneath that a strip of muslin. This is beneficial and acts as a scratcher. Ulceration simply means that there is pressure. Now if you put on enough of that wadding around the limb and more on the bony parts until you have plenty of it on, you will not have a pressure sore. The plaster cast must be smooth on the inside.

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FACTORS WHICH HAVE CONTRIBUTED TO BETTER RESULTS IN GYNECOLOGY AND OBSTETRICS.*

PALMER FINDLEY, M. D., OMAHA, NEB.
Professor of Gynecology, College of Medicine of the University of Nebraska.

Fordyce Barker, in his inaugural address before the first annual meeting of the American Gynecological Society, in 1876, said: "I think it may be truthfully asserted that in obstetrics and gynecology the progress in science, and consequently the improvements in practice, have been greater during the past one hundred years than the whole advance made during the previous ten centuries."

As a matter of fact, gynecology as a science and distinct specialty did not exist in 1776. It is in the last three-quarters of a century that gynecology may be said to have gained the distinction of a special science. Many factors contributed about this time to develop and establish the specialty upon a scientific basis; the uterine sound, the speculum, the bimanual examination, anesthetics and antiseptics were generally applied, and marvelous were the results.

More striking still is the contrast of the obstetrics of a hundred years ago with that of today. Modern obstetrics may be said to have had its origin in the publication of a work on The Anatomy of the Gravid Uterus, by Sir William Hunter, in 1774. Little was then known of the anatomy and functions of the ovaries, nothing was known of the physiological changes which pregnancy effects in the cervix, of the intermittent contractions of the pregnant uterus, ballottement, and auscultation of the fetal heart.

The pathology of obstetrics and gynecology was practically a closed chapter. In truth it may be said that the achievements of Mauriceau, Snellie, La Motte and Gifford of the eighteenth century, as compared with those obstetricians of the nineteenth century, were but the triumphs of individual genius rather than the scientific application of established law. The studies of the successive changes in the relations of the diameters of the fetus to those of the maternal pelvis, and the introduction and improvements of the obstetric forceps, account much for the progress of obstetrics of the nineteenth century; add to these factors the application of anesthetics and antiseptics, and we account in large measure for the great reduction in fetal and maternal mortality, and for the painless and easy execution of many obstetric operations.

With little knowledge of the anatomy and physiology of the uterus, knowing nothing of the mechanism by which normal, much

* Read before the Nebraska State Medical Association, Lincoln, Neb., May 1 to 3, 1906.

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less abnormal, labor is accomplished, having few and at best imperfect resources to overcome dystocia, helpless in the relief of pain, ignorant of the causes and means of prevention of wound infection, having no real knowledge of the pathology and management of placenta previa, eclampsia, ruptured uterus, embolism, septicemia and post-partum hemorrhages, we may compare the obstetrician of the eighteenth century to a mariner tossed upon the open sea, without chart or compass—yea, as one who knows not his own ship and is of little assistance to the helpless passenger.

The surgery of diseases of women may be said to have had no existence prior to 1850. In the following decade the subject burst, Minerva-like, upon the profession, and made rapid strides toward a perfect system. The overzealous workers in this new field "set the pace that kills" in their excessive tendencies to resort to the knife. Important organs were removed for vague symptoms of doubtful etiology, in the faint hope that benefit in some inscrutable way might ensue. Conservative men became prejudiced, as well they might, and to their opposition may be ascribed the era of conservatism in the treatment of diseases of women which followed; the pendulum which had swung too far in the one direction went as far in the opposite. But may we not with boldness say that the gynecology and obstetrics of today stand upon tenable, rational, middle ground?

I woud not urge the claims of surgery to the exclusion of medicinal treatment, both local and general. There is no clashing between medicine and surgery in this field; working together for good, the one sustaining and supplementing the other, but never substituting. Year after year, as gynecology has advanced, conditions which were regarded as amenable to medicinal treatment fell into the pale of surgery; yet be it said that at no time in all the past have the limitations of surgery been so clearly defined, and the value of the more conservative measures been so greatly appreciated as at the present time. No greater error could be promulgated than the idea that one must rely for his results either upon medicine or upon surgery. As the stereoscope produces one picture in vision, so the combined use of medicine and surgery produces one result in gynecology and obstetrics. Under the fraudulent guise of conservatism, the attempt is made by a certain class, which we now term "knockers," to smother every attempt at improvement by ridicule and misrepresentation. And so it has been from the beginning of medicine—they decried Harvey and Jenner, Lister and Pasteur, McDowell and Tait. The advance of surgery has

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ever been opposed by such men. Like the religionists who burned at the stake those who opposed them, their narrow-mindedness was a misfortune, their opposition to the truth a crime. The profession is today to be congratulated in having no tolerance to obstinate and perverse opposition to advancement in science. The truly conservative now listen open-mindedly to new proposals, and judiciously weigh new ideas in the balance, appreciating all suggestions, whether they prove valuable or not.

As late as 1883 Fordyce Barker addressed the American Gynecological Society in defense of his opinion that puerperal sepsis was not dependent upon wound infection. Holding to this view, he found no place for surgical cleanliness in the management of his obstetric cases nor for the isolation of the pregnant and puerperal woman from contagious diseases.

Happily his colleagues were not all of the same mind, and it was not long before the percentage of puerperal fever was greatly lowered by the exercise of surgical principles in the prevention and care of puerperal wounds. That puerperal sepsis is a preventable disease cannot be questioned when with the introduction of certain crude methods in the Vienna clinic in 1846 the percentage of infections following labor immediately dropped from 9.5 per cent. to 1.27 per cent. And as time has gone on, with the acquiring of more accurate methods of maintaining cleanliness in the delivery of women, we find this percentage steadily lowering. And were it possible for the obstetrician to have his cases wholly under his personal control, puerperal sepsis could be absolutely avoided. This of course can never be accomplished, inasmuch as the nurse, the patient, and the husband must always be reckoned with, and latent infections, long residing in the genitalia and in remote parts of the body, may be awakened by the incidence of labor. Over such infections the physician may have little or no control.

The history of the treatment of extrauterine pregnancy is of peculiar interest. The founders of American gynecology and obstetrics wisely manifested their temerity in performing laparotomies at a time when a mortality of 75 per cent. in abdominal operations was regarded as evidence of creditable work. Naturally they sought less dangerous substitutes, and we find them resorting to the injections of morphine and the application of electricity in the management of ectopic pregnancy. Reeve, in speaking of electricity in the treatment of ectopic pregnancy, said: "If further experience establishes its value, one of the most serious accidents happening to women will be robbed of its peril."

(Concluded in October issue.)

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WESTERN MEDICAL REVIEW

A JOURNAL OF MEDICINE AND SURGERY.

Published Monthly by WESTERN MEDICAL REVIEW COMPANY,
1238 O Street, Lincoln, Nebraska. Per Annum, $2.00.

The WESTERN MEDICAL REVIEW is the official organ of the Nebraska State Medical Association and is sent by order of the Association to each of its eight hundred members.

H. WINNETT ORR, M. D., EDITOR.

Entered as second-class mail matter at Lincoln, Nebraska post-office, under the Act of March 3, 1879.

VOL. XI. LINCOLN, NEB., OCTOBER 15, 1906. NO. 10

SKIN IRRITATION.

The reflex effects resulting from irritation of the sensory nerves of the skin are not sufficiently appreciated by the ordinary physician. He knows in a general way that mild skin irritation acts as a reflex stimulant to the central nervous system, while severe or extensive irritation may have the opposite effect, but does not realize that this is one of the simplest and least harmful methods of influencing the nervous life.

It is probable that every slight breeze or change in temperature has its influence upon the central nervous system through the sensory nerves. The refreshing effects of a cold bath are not due so much to the local circulatory changes in the skin as to the reflex stimulation of the cerebral cortex. This fact is usually recognized when cold water is used to stimulate the circulation in fainting or the cerebrum in awaking from sleep or stupor from depressant drugs.

It is altogether probable that the chief source of the benefits derived from mineral water and thermal baths is the reflex stimulation of nutrition and general vitality through skin irritation and not any special virtue in the baths themselves. The prompt improvement in the mental and physical condition of a delirious typhoid patient when put into cold water is not due to lowering of temperature so much as to reflex stimulation of the cerebrum through the sensory nerves, and if the change in temperature be too sudden or extreme, depression or shock may result instead of stimulation.

The effects of skin irritation in conditions of shock generally and

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in anesthesia accidents in particular are generally well known, as some form of irritation of sensory nerves is usually resorted to. The application of external heat, slapping, tongue traction, dilatation of the sphincter ani, hypodermic injection of irritants as ammonia, ether or alcohol, all produce their effects in a similar manner.

One of the chief causes of the depressing effects of a monotonous climate is the lack of stimulation received from changes in the atmosphere affecting the sensory nerves of the surface of the body.

Notes and News.

DR. O. D. PLATT, who has been practicing in Cook, Neb, has moved to Granville, N. D.

DR. J. B. SNYDER, of Rowan, Ia., died recently at his country home of cancer of the stomach.

THE Colfax County Medical Society held a meeting at Howells, Neb., Tuesday, September 4.

DR. C. A. LUTGEN, of Brock, Neb., has gone to Chicago, where he will take several weeks of post-graduate.

DR. J. F. FLYNN has resigned his position as police surgeon of Omaha and has been succeeded by Dr. R. B. Harris.

DR. A. E. GADBOIS, of Wichita, Kan., has located in Iola, Kan., where he will engage in the practice of medicine.

DR. J. H. TOBKIN, who has been located at West Point, Neb., for the past year, has engaged in practice in Lindsay.

DR. NELSON, formerly of Oakland, Neb., has removed to Tilden, Neb., to take charge of his brother's practice, who will retire.

DR. FRED CYPHENS, of Rising City, Neb., accompanied by his mother, has gone to Chicago to take a course in Rush Medical College.

MRS. C. W. BARTHOLOMEW, of Broken Bow, Neb., has secured pledges sufficient to insure the erection of a new hospital at that place.

DR. E. F. WOODS, of Clay Center, Neb., has been caring for the practice of her friend, Dr. Clay, of Fairfield, Neb., during the absence of the latter.

DR. TOWNSEND, at one time a resident of the vicinity of Cook, Neb., expects to locate in Talmage, Neb., in the near future. He has been traveling of late.

DR. O. S. WOOD, of Omaha, attended the international congress and Ames Institution of Homeopathy, which met at Atlantic City, N. J., September 10 to 15.

DR. R. S. ALBRIGHT, of Beatrice, Neb., is confined to his home on account of an attack of diphtheria, contracted while attending patients afflicted with that disease.

DR. W. F. CONWELL, of Neligh, Neb., by way of a summer vacation, has managed a baseball team, which has made quite a record in the northern part of the state.

DR. GUY MARTIN was down from Palmer, Neb., to attend the meeting of the Merrick County Medical Association October 2. Guy is meeting with success in Palmer.

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DR. E. S. HAWES will be medical examiner for the Rock Island employees at Fairbury during the absence of Dr. G. L. Pritchett, who is going west on a short trip.

A PARTNERSHIP has been formed between Drs. Gardner and Graham of Manilla, Ia., and the former will associate with the latter in conducting the hospital at that place.

DR. HARVEY LINK, one of the pioneer physicians of Nebraska, died at his home in Millard Tuesday morning, September 10. Dr. Link had practiced in this state since 1856.

DR. H. J. COLE, of Norfolk, Neb., left for the east September 13, taking his daughter who will enter Oberlin college. Dr. Cole expects to visit in West Virginia before returning home.

DR. ANDREWS and wife, of Holdrege, Neb., went to Omaha October 3. The doctor will buy operating appliances, etc., for the new hospital which he and Dr. Giese are building in that city.

DR. JOSEPH H. DRAKE, of Des Moines, Ia., one of the most prominent homeopathic physicians in the state, died at his home September 10. He had been ill with valvular trouble of the heart for over two years.

DR. H. H. MCDONALD, of Talmage, Neb., and Miss Pearle H. Gibson, of Galesburg, Ill., were married Saturday, September 1, in Nebraska City, Neb. Dr. and Mrs. McDonald will be at home in Talmage for the present.

DR. B. C. PARKER, one of the early settlers of Saline county, Nebraska, passed away at his home in Clay Center, Kan., September 27, at the advanced age of 91 years. Dr. Parker lived in Wilbur, Neb., for almost thirty years.

DR. CHAS. H. DAVIES has succeeded to the practice of Dr. Harry Lamb at Humphrey, Neb. Dr. Lamb had but recently succeeded Dr. J. C. McKinley, who removed to York, to get better educational facilities for his children. Dr. Lamb will remove to Utah.

DR. E. A. WEIR, of Chadron, Neb., has bought property in Hastings, Neb., and will move about October 10 to the latter place and engage in practice. Dr. Weir has been a resident of Chadron for thirteen years, and was surgeon of the Northwestern road at that point.

A RECENT fire at the Creighton Medical College caused considerable damage to the building, although classes are held as usual. The cause of the fire is unknown, as it started soon after midnight when the building was unoccupied. The loss is about $2,000.

A REMARKABLE discovery was made recently, when Dr. Porter, of Bondurant, Ia., performed an operation on a Polk county farmer for appendicitis, thirteen buckshot being removed from the vermiform appendix. This was caused evidently by cooking and eating game soon after bagging it.

DR. R. E. CONNIFF, of Sioux City, and a member of the Iowa state board of health, had three ribs broken and his wife had her left arm fractured twice and both were very severely bruised by the overturning of their carriage, due to running into a pile of dirt in the street.

DR. SYL. PERSON, of Stanton, Neb., who was ill all last winter, and spent part of the winter in an Omaha hospital, has entirely recovered, but has not yet resumed his practice. The doctor is considered one of the best judges of farm lands in Stanton county and is devoting some time to buying and selling land.

Heredity and Environment as Factors in the Life and Diseases of Children.—C. F. Wahrer, Fort Madison, Iowa (Journal A. M. A., September 8), discusses the factors of heredity and training in the development of

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the child. He holds to a certain degree of credence in the inheritance of acquired characters, quoting Brown-Séquard's epileptic guinea-pigs and the phenomena of telegony as evidence of this possibility. He points out how complex heredity is, considering the rapid multiplication of our ancestors as we go back in the generations of our descent, and points out how unproved are the different theories offered, such as the pangenesis of Darwin, the germ plasm of Weisman, and even the mathematical calculations that have been worked out by various authors. He believes that such have no more claim for our acceptance than the imaginative conceptions of the poet, who has, he says, often proved the better seer than the scientist. He believes in the importance of environment and thinks that Nature should be aided in her struggle for the survival of the fittest. It would be right, he thinks, if we could check the propagation of the defective and vicious.

Medical Phases of Dental Disorders.—S. A. Hopkins, Boston (Journal A. M. A., June 30), remarks on the frequent failure of diagnosis of the cause of morbid conditions actually due to dental disorders, either directly or in a reflex way. The first dentition has been made an almost universal scapegoat, and the present reaction from this tendency is perhaps going a little too far. There is no doubt that the eruption of the first teeth does sometimes cause a disturbance, but this would be reduced to a minimum were there no other causes active at the time to upset the delicate equilibrium of the growing child. Diseases of the eyes and ears occur with sufficient frequency at this time to warrant careful examination of the mouth, the condition of which is often directly connected with the disease. In any case of aural disease it is well to examine the mouth, and in this connection Hopkins makes a special plea for children at the school age whose earaches, in about one-quarter of the cases, are originated or continued by the presence of diseased teeth. The disturbing influence of the sixth year molars is not generally recognized, and is generally of no importance. Occasionally, however, their eruption may be accompanied with symptoms, mild tonsillitis or stomatitis or even enlarged cervical glands. In the latter case, if there is no other evidence of tuberculosis, he advises delay in operating for such glands at this time until the teeth have fully appeared and the mouth is in its normal state. During the next seven years of the child's life the condition of the mouth and teeth is largely responsible for its health and proper development. The period between 6 and 12 years is the time when the teeth most suffer and afford special opportunities for the reception and growth of mouth bacteria. Caries of the first teeth is very rapid, and considering the number of infectious diseases that are liable to occur at this period, Hopkins thinks it reasonable to assume that the condition of the teeth and mouth may have an important bearing on the development and spread of infection. We may have here, he thinks, a possible addition to our knowledge of prophylaxis and a still untried method of preventing infection by attention to the germs in the mouth. Constant absorption from diseased gums and carious teeth must lessen resistance, and even the germs of tuberculosis may find their entrance here. The eruption of the twelve-year molars is usually unnoticed, but in rare cases it may cause severe constitutional symptoms, especially when the development of the jaw is tardy and pressure results. Empyema of the antrum so often has its cause in disease of the posterior superior teeth that he only mentions it to insist on their due examination in all cases of antral disease. Nasal disease may also have its origin from these and the superior incisors. Perhaps no one tooth can give rise to so many and various severe conditions in its eruption and in its decay as the wisdom tooth. Neuralgia, tonsillitis, aural disease and sometimes unusual and obscure ocular troubles may be traced to this source and the constitutional disturbances are often severe and serious. Suppuration from a

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wisdom tooth is always to be dreaded because of its tendency to burrow, and it may even threaten life. Obscure, typhoid-like or malarial symptoms may sometimes be traced to this cause. Neuralgias and stomatitis from decaying or erupting teeth are mentioned and, in concluding, it is suggested that inspection of school children's teeth would be followed by marked improvement in public health as well as being a valuable educational measure for the public.

Book Reviews.

THE SECOND REPORT OF THE WELCOME RESEARCH LABORATORIES AT THE GORDON MEMORIAL COLLEGE, KHARTOUM, AFRICA. By Andrew Balfour, M. D., Director.

This volume from "The Dark Continent" is full of interesting reports of work done in the Welcome Laboratories. Some of the subjects are as follows: Mosquito Work in Khartoum and Anglo-Egyptian Sudan, Biting and Noxious Insects other than Mosquitoes, Human and Animal Pests, A Leucocytozöon of Mammals, Tripanosomiasis in the Anglo-Egyptian Sudan, Bilharziosis, Reports of the Chemical Laboratory.

BOOKS RECEIVED.

Progressive Medicine, Vol. III, September, 1906. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, 298 pages, 14 illustrations. Per annum, in four cloth-bound volumes, $9; in paper binding, $6, carriage paid to any address. Philadelphia and New York: Lea Brothers & Co.

Kiepe's Materia Medica and Therapeutics. A Manual for Students and Physicians attending post-graduate courses. By Edward J. Kiepe, Professor of Materia Medica in the Department of Pharmacy, and Adjunct-Professor of Materia Medica and Pharmacology in the Medical Department, University of Buffalo. In one 12mo volume of 265 pages. Cloth, $1, net. Philadelphia and New York: Lea Brothers & Co., Publishers. 1906.

The Vermiform Appendix in Relation to Pelvic Inflammation.—(Arnold Lea, Journal of Obstet. and Gyn. of the British Empire, August. 1906.)—The vermiform appendix is so frequently a pelvic organ that it merits the attention of all gynecologists. The author reviews the anatomical and pathological relations of the appendix to the pelvic viscera, and records ten cases in which lesions of the appendix were found in association with pelvic inflammation. In view of the importance of the appendix as a cause of pelvic pain and inflammation, and as a secondary complication of pelvic disease, the following conclusions appear to be well founded: The appendix should be removed (*a*) if it lies in the pelvis: (*b*) if it shows any periappendiceal adhesions or contains a concretion; (*c*) if it is adherent to any pelvic inflammatory swelling or tumor; (*d*) if it lies in close relation to the pedicle or raw surface left after the removal of any pelvic organ.—PALMER FINDLEY.

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Original Articles.

FACTORS WHICH HAVE CONTRIBUTED TO BETTER RESULTS IN GYNECOLOGY AND OBSTETRICS.*

PALMER FINDLEY, M. D., OMAHA, NEB.
Profe-sor of Gynecology, College of Medicine of the University of Nebraska.

(Concluded from September issue.)

In 1882, Garrigue said: "According to Parry, Brown, Routh, Playfair, Meadows, Greenhalgh and Darby have proposed to perform laparotomy and extirpate the sac before rupture occurs. But in spite of so many recommendations, the operation has never been tried, and weighty voices have been raised against it, among them that of Spencer Wells. Against all these dangerous or doubtful methods stands electricity with a record unblemished by a single failure or any dangerous consequences."

As the profession was brought to more keenly appreciate the prevalence and the dangers of extrauterine pregnancy, and as results in abdominal surgery improved, we became familiar with the dictum which knew no exception—"Operate every case of ectopic pregnancy at the earliest possible moment!"

Of recent years the attempt is made to discriminate between those cases which should be operated without delay, those which do not require immediate interference, those which demand delay before interfering, and those which never demand surgical intervention; and again those which should be approached through the abdomen and those which are better approached by way of the vagina.

The combined cases of extrauterine pregnancy, in which the tubes had ruptured and the escaped blood become encapsulated, of Schauta, Fehling and Krönig number 275, and were operated with a mortality of 1.9 per cent. Again, Fehling and Zweifel reported 152 cases treated conservatively, and with no fatal results. It is evident that much is yet to be done in the way of the diagnosis and treatment of extrauterine pregnancy.

Exploratory punctures of the abdomen have been almost wholly replaced by exploratory incisions, yet less than three decades ago Garrigue wrote: "Exploratory puncture gives so valuable information and so much harm has resulted from the opening of the abdomen in cases not fit for operation, that I think it ought to be performed in every case before a more dangerous operation is undertaken."

* Read before the Nebraska State Medical Association, Lincoln, Neb., May 1 to 3, 1906.

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Even dilatation of the cervix had its mortality and in no less skillful hands than those of Marion Sims, who reported two fatalities from this simple procedure, both dying from peritonitis.

We find excision of the cervix for carcinoma, hypertrophy and atresia referred to by Churchill as "murderous" and often attended and followed by "fearful consequences." These criticisms were not without justification, for Byrne recorded seven deaths within twenty-four hours in twenty-eight amputations, together with six cases of this number in which life was hazarded by hemorrhages. Sims was given unstinted praise in having but one death in fifty amputations of non-malignant cervices. Control of bleeding vessels and surgical cleanliness have made the mortality in this operation practically nil.

Emmet proposed the repair of the lacerated cervix on the theory that the resulting scar tissue excited many nervous disorders, both general and local, and for many years thereafter the song of the English bard, "Stitch, stitch, stitch," applied to human flesh as well as to baser material. While few in this day believe in reflexes emanating from old lacerations of the cervix, yet we would do honor to Emmet for his pioneer work in the repair of the cervix, for it laid the foundation for the modern surgery of the cervix.

At the same time there were those who objected to immediate repair of the lacerated perineum for fear of erysipelas and puerperal phlegmasiæ due to the irritation of sutures and the strangulation of included flesh. Now we view the presence of an old laceration of the perineum as a reflection upon the skill of the accoucheur.

We find the founders of American gynecology devoting much time in discussing the general nervous phenomena resulting from the lacerated cervix and perineum, displacements of the uterus and ovaries, and from what was then termed sclerosis of the ovaries. Countless operations were proposed for the correction of these lesions. Now it may be fairly stated that no operation is proposed for general and remote disorders; that the indication for operating upon any organ is determined by the lesion *per se*, and not by functional disorders of remote organs, which are presumed to have originated from local lesions. Battey proposed the removal of functionating ovaries for the relief of hysteria, nymphomania, insanity, epilepsy and like nervous and vascular phenomena, and this at a mortality ranging from 20 to 75 per cent. The medical profession is to be congratulated on its emancipation from such methods, which were conceived in ignorance but were later practiced in the name of science and for the greed of gain.

Döderlein performed 382 ovariotomies for all sorts of lesions of

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the ovaries, and with a mortality of only 1.3 per cent. As we compare such results with those obtained in the beginning of modern surgery, when 75 per cent. of mortality was creditable, we are impressed by the marvelous achievements in gynecology during the past three decades.

As late as 1880 Winkler advocated the drainage of the abdominal cavity in every case of abdominal section. Billroth, the foremost surgeon of his time, drained fifty of his fifty-one cases. It was doubtless a wise provision in those days, when surgical cleanliness was imperfectly maintained, when hemostasis was uncertain, and when the varying degrees of virulence in bacteria were not appreciated.

Andreas à Cruce performed the first vaginal hysterectomy in 1560, but it was Hennig, in 1876, who first reported a successful immediate result in a vaginal hysterectomy for cancer of the cervix, though the patient died from recurrence in eight months. This case gave new inspiration to the surgeons, and then followed the seemingly inevitable furor operativis. Two years later (1876) Freund successfully performed an abdominal hysterectomy under antiseptic precautions, and in the following year thirty-one cases were recorded, of which number twenty-one died. Again, two years later (1880), Freund recorded sixty-five cases with fifty-one immediate deaths and with no reference to the remote results; yet he speaks of the operation as not very dangerous in the early stages of carcinoma and sarcoma. In 1883, ninety-one recorded cases showed an immediate mortality of 72 per cent. Then Reeves Jackson, speaking in the name of conservatism, declared: "The extirpation of the cancerous uterus is a highly dangerous operation, which neither lessens suffering—except when it kills—nor gives reasonable promise of permanent cure in those who recover. And hence it fails in all the essentials of a beneficial operative procedure, and should not be adopted in modern surgery."

Few of us have as yet any great amount of zeal in the treatment of cancer of the uterus. While the immediate results are, as a rule, gratifying, we are anything but sanguine of the future of our cases. A glance at recent statistics would not seem to justify us in assuming such a pessimistic attitude, for there is much in them to give encouragement. Prior to 1880 the average immediate mortality of hysterectomy for cancer of the uterus was 72 per cent., and in 1895 Olshausen recorded 100 cases of vaginal hysterectomy for cancer of the uterus with an immediate mortality of only 1 per cent. Such statistics are indeed gratifying, but when we turn to

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the statistics showing the percentage of recurrences, we lose much of our zeal and all of our confidence. According to Fitsch,

61 per cent. return within two years.
23.7 per cent. return within three years.
9.6 per cent. return within four years.
5 per cent. return within five years.

These statistics do not speak so much for the need of improved operative technic, but far more for the necessity of making an early diagnosis.

The developments in the treatment of uterine fibroids, on the contrary, has been most gratifying, both in the immediate and remote results. In the days when major surgery was so uncertain in its results, we find these growths treated by electricity, ergot, the ligation of the blood supply to the uterus, and the removal of the uterine appendages. All these procedures have been given up for the enucleation of the tumor or the removal of part or all of the uterus together with the tumors, either by way of the vagina or abdomen. Such radical measures are justified by recent statistics.

In supravaginal amputation of the uterus we find, in

1863, 49 cases were operated with 74 per cent. mortality (Zweifel).
1876, 140 cases were operated with 56 per cent. mortality (Zweifel).
1878 to 1885, 295 cases were operated with 36.2 per cent. mortality (Gusserow).
1891, 881 cases were operated with 23.1 per cent. mortality (Hofmeyer).
1897, 806 cases were operated with 5.6 per cent. mortality (Olschausen).
1904, 689 cases were operated with 4.6 per cent. mortality (Winter).

In 1904 Dührssen performed 197 vaginal hysterectomies and 231 abdominal hysterectomies for uterine fibroids with a mortality of 3.7 per cent.

It is of interest to note that the average mortality in myomectomy is now 7.8 per cent.; and that the recurrences after myomectomy range from 6 to 8 per cent. Also that removal of the uterine appendages for the cure of uterine fibroids gives a mortality of 4.6 per cent., and with failures to control hemorrhage and to effect atrophy of the tumor in 10 per cent. These figures speak against the adoption of such so-called conservative procedures, and in favor of partial or complete hysterectomy, save in the carefully selected cases.

The history of electricity in the treatment of diseases of women

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has been most interesting. No one lesion in the category of diseases peculiar to women has failed to have its day with electrical treatments. "No more ovariotomies!" said Frederick Semeleder in 1875, as he concluded his report of several cases of ovarian tumors cured by electricity. Ectopic pregnancy was robbed of its terror in the minds of many of the early supporters of electricity as a remedial agent. Uterine fibroids were effectually disposed of without resort to "murderous operative procedures." In short, it was a panacea for the relief of all diseases of women. It is now contended that electricity has no place in the treatment of the diseases of women, that in gynecological therapy it stands for ignorance and quackery.

More than 300 varieties of pessaries have been devised for the correction of uterine displacements; many of them useless, not a few of them harmful, a large majority superfluous, but a chosen few deserving of the greatest consideration in that in carefully selected cases they do correct displacements and relieve symptoms referable to the displacements.

The operative treatment for uterine displacements is far from satisfactory. Not until we come to a definite understanding as to the factors which contribute to the support of the normally placed uterus and fully appreciate the opposing factors which determine displacements, can we hope to arrive at a satisfactory solution of the problem. However, we can report progress; two problems at least have been settled to the satisfaction of the majority of workers in this field:

First, no fixation of the uterus should be made during the child-bearing period.

Second, complicating lesions are of prime importance, and hence the rule that intra-abdominal operations which permit of the correction of these lesions are preferred to all extraperitoneal methods.

Dudley, in speaking of plastic surgery of the pelvic floor, said: "In recent years abdominal surgery has so far engrossed the mind of the gynecologist, not to mention that of the general surgeon, that by comparison the minor plastic work, to some extent, has been neglected or given into incompetent hands. It is perhaps not too much to say that our fathers in their day did better plastic surgery than we are doing in ours. Indeed, a revival of interest may be necessary in order to save this part of gynecology from becoming a lost art. It is time, therefore, without losing sight of the claims of capital surgery, to bestow adequate attention on the homely, every-day problems of gynecology."

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The question naturally arises, What are the factors which have contributed to the improved results in gynecology and obstetrics? Time will not permit of more than a hasty allusion to these factors. In general, they may be said to be very largely those principles and rules of practice which have been adopted in the field of general surgery.

At the very foundation of all advancement have been the studies in the pathology of the pelvic region. Diagnosis is based upon the recognition of the pathology. The early recognition of malignant growths is in no part accounted for by an interpretation of the symptoms, for they are at most only suggestive in the early stages of the disease, and the making of an early infallible diagnosis can only be based upon the microscopic examination of excised pieces and scrapings. Bacteriological research has revealed to us the essential causes of puerperal sepsis and of operative and gonorrheal infections, and has afforded us the means of prevention of these, the most prevalent of the diseases of women. Without a thorough knowledge of pathology, no man can aspire to accurate diagnosis or to efficiency in treatment.

In recent years we have learned to appreciate and to recognize in part the varying degrees of virulence of micro-organisms. These observations have led us to formulate rules by which we are to be guided in the conduct of septic cases. We appreciate the dangers involved in the opening of the abdomen in the presence of virulent infection and have laid down the inflexible rule that in acute pelvic infections the abdomen should not be opened; that no unnecessary examinations and no operation should be made unless urgently demanded by grave and increasing evidences of sepsis; and then, at most, vaginal drainage should be done with the utmost caution. Untimely interference in these cases has made large contributions to the mortality. Too much emphasis cannot be placed upon the demands of tentative, supportive and palliative treatment, so long as the local and general conditions point to the presence of virulent micro-organisms.

The examinations of the blood have contributed largely to the making of accurate diagnoses and to the determination of the time and manner of procedure. In this way we recognize the presence of septicemia and its essential cause; we determine with almost certainty the presence of pus, and estimate more or less accurately the degree of virulence of the infecting micro-organisms. Furthermore, we are greatly assisted in the making of the prognosis. By adhering to the rule that before operating a blood examination must

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be made, we occasionally avoid mistakes in diagnosis which would lead to unfortunate results. Routine examinations of the blood are now regarded as of no less importance than that of the urine. In a large percentage of cases no additional information will be afforded by the examination of the blood, but in those cases where the responsibility is the greatest these examinations become of the highest value. Without a blood examination the surgeon may be led to proceed with an operation, and with fatal results, that might have been avoided had the degree of anemia been known and the operation been delayed until the blood was brought up to a safe standard. Or he may be led into the abdomen, not having anticipated the presence of a virulent pelvic infection, which, had he been aware of its presence, would have suggested delay until the micro-organisms had lost their virulence.

While we are as yet much in ignorance of the functions of the ovary and speak in vague terms of the ovarian secretions, we are impressed with the necessity of preserving the integrity of these organs, even though the tubes and uterus are sacrificed. The conservative work on the ovaries is one of the triumphs of modern gynecology, and the dictum—"to save what can be saved" of the ovarian tissue at all times of life, is certainly timely in the light of past history and the unfortunate results which confront us to this day.

I have been frequently asked, "What are the indications for the removal of both ovaries?" And my reply has been: first, malignancy, tuberculosis and abscess formations of both ovaries, and second, benign tumors of the ovaries involving all of the ovarian tissue. If this position can be maintained, the justification for the entire removal of both ovaries will be rare indeed. Better for the patient to suffer some local discomfort than to be unsexed and driven into the nerve storms which make life a burden to herself and to her family.

Careful details in the covering of all raw surfaces in the pelvis by intact peritoneum have contributed largely to the prevention of sepsis, post-operative hemorrhages, and, above all, to preventing the formation of adhesions which give rise to pain and discomfort in after years, and to ilius.

The introduction of catgut has done away with the necessity of using non-absorbable suture material in the peritoneal cavity, and has made possible the perfect coaptation of tissues and the control of bleeding vessels.

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The use of rubber gloves has lessened the percentage of infections, not only in the patient but in the operator as well, and they have made for themselves a permanent place in the equipment of the surgeon.

In no other department of surgery do we find the Fowler position so generally applicable and more eminently satisfactory. This position serves in the prevention of the upward spread of pelvic infection prior to as well as following operations, and greatly favors drainage through the vagina. Not only this, but by favoring the descent of the abdominal viscera away from the diaphragm, the respirations and heart action are favored and there is less annoyance from gas pains.

Normal salt solution, as a life-saving agency, has not its equal. It lessens septicemia by diluting the toxines of the blood and favoring their elimination through the skin, bowel, and kidney, and restores the equilibrium of the circulation after hemorrhages. The continuous feeding of the bowel with salt solution at the rate of a pint an hour throughout the period of depression has given most gratifying results and is preferred to all other methods of administration.

In obstetrics the general adoption of the improved axis traction forceps has done more than any other factor in recent years to reduce fetal mortality. This instrument has done away with many of the mutilating operations and has rendered possible the safe delivery of the child which would otherwise have been sacrificed.

While puerperal infection has become very largely a preventable disease, the conservative management of puerperal infection has saved the lives and health of countless women. In this class of cases the curette is finding its legitimate place; it should never be employed for any purpose other than the removal of placental remains, and then with the utmost caution. In fact, it is my practice to discard it altogether in the treatment of acute puerperal infection, and substitute, in its stead, the fingers or placental forceps, which are equally as effective and less likely to do harm. Surgical intervention in these cases has sacrificed many lives and has been the means of spreading the infection, and may be said to have done vastly more harm than good.

Time will not permit of a further discussion of the factors which have contributed to better results in gynecology and obstetrics. I trust that enough has been said to suggest the great advances which have been made in this special field, and to point out the more important methods which have contributed to these results. The

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judicious employment of not one but of all these procedures accounts for the great advances which have been made and speaks for continued improvement.

SOME LITTLE-KNOWN PECULIARITIES OF THE TEETH IN HEREDITARY SYPHILIS.*

H. GIFFORD, OMAHA, NEB.

When a well-known medical fact has been brought to our knowledge through some fundamental but remote communication it is of great importance that from time to time the original paper be consulted and reviewed. This fact is well illustrated by a perusal of Hutchinson's paper on syphilitic teeth, published in 1858, in Vol. IX of the Transactions of the London Pathological Society, and was followed in the next year by another paper (Vol. X of the

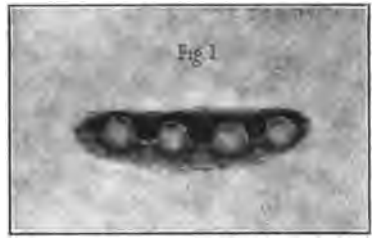

FIG. 1.—Peg-shaped permanent incisors (reproduced from Hutchinson).

Transactions), on the same subject. In modern standard works on the eye, on syphilis and on the teeth, the effects of hereditary syphilis are generally referred to only in a brief paragraph on the central incisors, with a (frequently faulty) figure of the same. In the great majority of cases nothing is said about any of the other teeth. In the originals, however, one finds beside descriptions of the central upper incisors, references to several other dental peculiarities which, while not so common as the "Hutchinson" incisor, are nevertheless very characteristic when present; and are of decided diagnostic importance, since they sometimes exist when the permanent incisors are either not characteristic or are altogether absent. These are in brief: (1) A condition of the lower permanent incisors, shown in Fig. 1; the teeth being rounded, short, flat-topped pegs; discolored,

* Read before the Nebraska State Medical Association, Lincoln, Neb., May 1 to 3, 1906.

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rough and standing far apart. (2) Permanent canines with a sharp tubercle projecting from the main body of the tooth (Fig. 2). Hutchinson says of this form: "It is almost always present in syphilis, but it is very frequent also in cases in which no suspicion

FIG. 2.—Permanent tuberculated canine with inability to close teeth. Fourteen-year-old girl with interstitial keratitis.

of such disease exists." (3) With regard to the milk teeth, while he says, "the temporary teeth in syphilitic children do not present any peculiarities of form," this statement is entirely misleading, since he means thereby merely that on their first appearance

FIG. 4.—Temporary tusked canines. Eight-year-old girl with interstitial keratitis.

they are not peculiar; and after mentioning that these children are particularly liable to caries and early decay of the incisors, he says: "The temporary canines, however, are subject to another form of wearing away, which while not very common is, when it occurs,

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very characteristic. The result of this wearing away is the production of a central tusk or peg projecting beyond the broader base, and marked off from it by a sharp line." (Fig. 4.) "It is not usually produced in any marked degree until about the age of from six to eight. I have seen quite recently an approach to it in one of the molar teeth of a syphilitic child."

I have never noted the first condition mentioned, but I can confirm the observations on the canine teeth, both permanent and temporary. With regard to the former, the permanent canine tooth with the sharp central tubercle, I should place a higher diagnostic value on it than Hutchinson is inclined to do. I have never seen

FIG. 5.—Permanent first molar. Darier's type. Boy with interstitial keratitis and syphilitic joint affections.

it except with other signs of syphilis. Darier also (Bull. et mem. de la Soc. Francaise d'Ophtalmologie, 1903, p. 216) lays great weight on this form of canine. The Hutchinson milk-canine I have also observed. It is a very striking form of tooth and once recognized can hardly be forgotten. The only addition which I feel like making to Hutchinson's description of this tooth is the fact that the central tusk or peg in this as well as in the permanent canine just mentioned, is somewhat rough and of a dirty yellowish color; a point which is well shown in Hutchinson's colored plate, but which he does not mention in the text. I can also confirm his observation of a similar condition in a molar tooth. I first observed it independently and congratulated myself on my discovery until, on reading Hutchinson's paper, I found it noted there.

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Another peculiarity of these syphilitic teeth which I thought I had discovered is the fact that in many of the children the central part of the dental arch is so poorly developed that even when the jaws are shut tightly quite a space is left free between the upper and lower incisors. This claim to fame I have also been obliged to relinquish since I find it noted, not by Hutchinson himself, but in a report appended to his first paper by a dental-surgeon named Coleman, to whom he had referred his cases for an expert opinion on the peculjarities which he had described.

The only peculiarity of the syphilitic molars noted by Hutchinson is the wearing away in one case noted above. How so keen a clin-

FIG. 6.—Permanent "sloped" first molars. Thirteen-year-old boy with interstitial keratitis and necrosis of hard palate.

ician could have overlooked the striking peculiarity recently described by Darier (loc. cit.) is hard to understand. Brunet had not long before Darier's communication, called attention to the frequency with which the first permanent molar became carious in hereditary syphilis, explaining it by the fact that this tooth is the only one of the permanent set which commences to calcify during fetal life. Darier then found that these subjects frequently have, in early years, a very characteristic form of first permanent molar (Fig. 5), the summit being formed by four "tuberosities or tubercles" of a yellowish color, surrounded by a groove separating them from the whiter enamel-covered body of the tooth, which bulges out

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on all sides beyond the tuberculated crown. These tubercles soon wear down or become carious, so that unless seen early in life one finds simply a molar with a carious crown. I have seen several patients with these "Darier" molars beautifully marked, and I believe they occur in as many syphilitics as the Hutchinson incisors do, but they are not observed so often, first, because it is more troublesome to get a look at the molars and, second, because their peculiarities are so often destroyed by caries.*

Another form of molar which I have observed and which I think worth calling attention to is what, for want of a better term, I call a sloping molar, shown in Fig. 6. In this form the crown of the tooth is well covered with enamel and not especially subject to caries, but both the outer and inner sides of the tooth slope with a somewhat uniform curve toward the median antro-posterior axis of the tooth, narrower in proportion to its other dimensions. These teeth seen somewhat from in front remind one of a pair of Hutchinson's incisors set close together with the flat sides toward each other. In the case in which I have seen this form most marked, the patient was a 13-year-old boy of apparently robust physique, with the teeth as a whole in excellent condition, and the incisors, as shown in the figure, having none of the ordinary syphilitic marks; but who developed in rapid succession interstitial keratitis, an indolent swelling of the tissues about the knee, and necrosis of the hard palate. The father, a respected, God-fearing citizen, admitted the possibility of a specific taint.

To sum up, then, in examining the teeth for signs of hereditary syphilis, attention should be directed not only to the central incisors, but in proper cases to the following dental peculiarities: (1) Peg-shaped lower permanent incisors; (2) sharply tusked permanent canines; (3) blunt tusked or pegged temporary canines; (4) high, vaulted, imperfectly developed hard palate, preventing the incisors from coming together even when they are of normal size; (5) the tuberculated first molar of Darier; (6) the sloped molar.

DISCUSSION.

DR. STOKES, Omaha: This paper has interested me very much, for I am frank to confess that through my relation to the medical school I have made a somewhat careful study of deformed teeth; also, I happen to be a member of the Omaha Dental Society, where this subject has been discussed. I do not quite understand what a Hutchinson tooth really is. Teeth of hereditary

*In this connection it is worth while to recall another observation of Hutchinson's, namely, that the typical notched incisors are seldom met with after the age of 20 on account of the wearing away of the borders of the notch.

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syphilis do not seem to me to follow any particular line of development. They may be of any shape whatever, and I cannot see how one can say that any particular form of a tooth is due to syphilis, for other diseases may also produce various shapes of teeth; for instance, scarlet fever gives a characteristic form of teeth. The tooth is divided, for classification, into nine parts, by two lines drawn lengthwise and two lines drawn transversely. Each one of these divisions is supposed to be a center of ossification, and in the growth and formation of the teeth these centers of ossification are more or less atrophic when diseased; but that any particular disease produces any particular atrophy, is to me a rather questionable point. I am well aware I have not had as much experience as Dr. Gifford in the observation of these conditions, but at the present time I would be very reticent about making a diagnosis of syphilis from any form of the teeth that it has been my fortune to observe.

DYNAMIC EFFECTS OF ANTIPNEUMOCOCCIC SERA IN PNEUMONIA.*

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In the field of serum therapy the general attention attracted to the use of antipneumococcic sera in pneumonia has been second only to that of antidiptheritic sera in diphtheria. The dramatic triumphs accomplished by the latter have done much, perhaps, to stimulate experimental study along similar lines in pneumonia.

With a continuous high death-rate in a septicemic condition, accompanied by a toxemia sufficient to explain the frequent cardiac exhaustion, it has been rationally natural to look for a treatment aiming to neutralize these blood abnormalities.

Much has appeared in the literature during recent years concerning serum therapy in pneumonia, but it is not my purpose here to review this. The general unsatisfactory results are familiar enough. It will be remembered, however, that most cases reported have been observed simply for the curative effects of the sera; some for changes produced in the temperature curve; others for a hastened crisis, and a very limited number for blood changes. Nearly all reports show that other treatment has accompanied the use of the antipneumococcic sera, and to place the responsibility for subsequent changes becomes correspondingly uncertain.

This report embraces observations made at Cook County Hospital, Chicago, Ill., in the spring of 1905, upon six cases of lobar pneumonia, during a period when the only treatment was the subcutaneous administration of twenty cubic centimeters of an antipneumococcic serum, the chief object being to demonstrate, if possible, any dynamic, not necessarily curative, effects produced by

* Read before the Nebraska State Medical Association, Lincoln, Neb., May 1 to 3, 1906.

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the serum. With this object, observations were taken before and three hours after the administration of the serum and changes looked for in the blood pressure, leukocytosis, agglutination characteristics, presence of pneumococci in the blood, changes in the chlorides and albumin of the urine, as well as in the general clinical picture of the case.

The blood pressure was estimated by means of the Rocci-Cook sphygmomanometer, the arm at the junction of the middle and lower thirds being chosen as the most suitable place to apply the compression band. Exactly the same place on a patient's arm was used for the second readings.

A leukocyte count was then made and also blood smears for staining, preparatory to a differential count. This blood was obtained in the usual manner from the ear-lobe.

From a distended superficial vein, usually the median basilic, enough blood was aspirated, under strict aseptic and antiseptic precautions, to make bouillon cultures and for the collection of serum to be used later in agglutination tests. The cultures were incubated at body temperature and a hanging drop examined at the end of twenty-four hours and on each subsequent twelfth unless positive at first. In all cases the diplococcus of pneumonia was found present in the blood and in Case III the Friedlander bacillus of pneumonia as well.

For the agglutination reactions several cc. of blood were collected in test tubes and set away to allow the coagulum to separate from the serum. Later, both microscopic and macroscopic agglutination tests were made with dilutions from 1 in 15 to 1 in 60, using the organisms isolated from the patient's own blood and also foreign organisms, or those obtained from other sources. By this we hoped to demonstrate, if present, any special agglutinins existing in the patient's serum for the infecting pneumococcus, not shown for other pneumococci. As a result the reaction was found present for the infecting pneumococcus only in four cases, while the serum of the remaining two cases agglutinated other pneumococci equally well.

The chlorides of the urine were estimated by precipitating with a constant amount of silver nitrate, using a graduated centrifuge tube of the Purdy type and allowing the centrifuge to run at a certain speed a definite time.

The per cent. of albumin was estimated by the Purdy centrifuge method.

At this point the antipneumococcic serum was given, and three

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hours later, having allowed no other treatment in the meantime, the same series of observations were made a second time.

Cases with positive physical findings only were accepted as suitable material. All were adult males. The time of entrance varied from the second to the sixth day. Immediately upon entrance to the ward they were put to bed and as soon afterwards as was possible observations were begun.

CASE I.—J. P., Polish; entered hospital April 10, in the evening. He spoke little English, but it was ascertained to be the second or third day of his illness. He was somewhat cyanotic; perspiring freely; respiration rapid and labored; pulse fast but of fair volume and tension. About two hours after the antiserum was given there was a noticeable improvement in the pulse and the patient appeared a little less anxious. Shortly afterwards he rapidly grew worse and died before the second observations were taken.

Of chief interest in this case is the low leukocyte count coming in a fatal case, viz., 6,733; a 7 per cent. eosinophilia, the highest in this series of cases; agglutination of the pneumococcus isolated from the patient's blood and foreign pneumococci in equally high dilutions; an average amount of chlorides in the urine; and a 7 per cent. albuminuria.

CASE II.—H. N., a young man; entered the hospital April 15. He had been sick five days, complaining of rather typical pneumonic symptoms. On entrance his pulse was 136, full and of fair tension; temperature 102.6°; respiration 36; somewhat delirious at times.

During the period of observations the blood pressure increased slightly; the leukocytes decreased 1400 in number, with a 10 per cent. relative increase in the polynuclear and a corresponding decrease in the large mononuclear and transitional varieties; the agglutination reaction decreased for the pneumococcus isolated from the patient's blood and remained negative for foreign pneumococci; the chlorides of the urine increased, while the albumin remained 3.4 per cent.

In this case the delirium became violent and continued for eight days. On the thirteenth day signs of fluid in the right pleural cavity were noted and upon aspiration, pus containing many pneumococci was found present. The patient was transferred to the surgical side for further treatment.

CASE III.—W. L., a young colored man; entered the hospital April 16. He had been ill for six days and had a well defined lobar involvement.

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During the period of observations his blood pressure increased slightly; the leukocytes decreased from 11,953 to 8,650 with practically no relative change; the blood cultures showed a double infection, which when plated out and subcultured proved to be the diplococcus of pneumonia and the Friedlander bacillus; the agglutination reaction before administering the antiserum was positive for both of the organisms isolated from the patient's blood but negative for others, and three hours later was positive only for the diplococcus isolated from the patient's blood; the chlorides were slightly decreased while the albumin remained the same in the urine. No change was noted clinically.

(To be continued.)

Abstracts.

Tortion of Fibroids During Pregnancy.—(Le Page and Mouchotte, Annals de Gynecol. et d'Obstet., February, 1906.)—Contrary to the opinion long held by the profession, fibroids complicating pregnancy are not, as a rule, worthy of serious consideration; and it is seldom necessary to remove them during the period of gestation, or to interrupt pregnancy because of their presence. In exceptional cases operative interference may be called for in event of tortion of the pedicle, gangrenous degeneration of the tumor, the exciting of uterine contraction, or finally the growth of the fibroid to the size that will interfere with the development of the pregnant uterus.

The authors of the above contribution have recorded a series of their own cases and of others previously reported where operative interference was demanded by tortion of pedunculated fibroids. In one case the fibroid had twisted the uterus upon its long axis. In the case of Maygrier, intense pain in the right side led to the diagnosis of appendicitis. Abdominal section revealed a twist in the pedicle of a subperitoneal fibroid; the tumor was removed without interrupting pregnancy. A similar case, and with like results, was recorded by Ribemouth-Dessaignes and Grosse. In an almost identical case reported by Routier the pregnancy was interrupted by the removal of the tumor; both mother and child died. Ricard successfully removed a fibroid with a twisted pedicle without interrupting pregnancy. No definite rules can be laid down as to the conduct of such cases. In many cases the diagnosis is uncertain. Acute and recurrent attacks of abdominal pain, coupled with the finding of a circumscribed tumor attached to the uterus, will suggest the diagnosis of tortion of a pedunculated uterine fibroid. But few of the cases recorded were of fibroids of any considerable size, and the majority occurred between the second and sixth months of pregnancy. Unlike tortion of ovarian cysts, the pedicles were usually short.

This accident has occured more often in primipara than in multipara.

An effort should be made to remove the fibroid with as little disturbance of the uterus as possible, and after the operation the uterine contractions are checked by the judicious use of morphine.—PALMER FINDLEY.

The Danger from Bovine Tuberculosis.—The storm which Koch raised at the tuberculosis congress in London in 1901 has not subsided; and the indications are that when it does, it will not be found that his reputation

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for scientific prudence has been increased by his utterances there. His dicta that the bovine bacillus is an entirely distinct variety from that which causes tuberculosis in man; that human tuberculosis cannot be conveyed to cattle; and that consequently the danger of the disease being conveyed from cattle to man is insignificant, have met with lively and widespread opposition, but enough partial adherents have been found, particularly among the workers at the imperial Gesundheitsamt, to keep the question still open. Among the most important of recent contributions to the question is that of Eber (Centralblatt f. Bacteriologie, 38, 15-18). Admitting the well-recognized fact that to convey tuberculosis direct from man to cattle is difficult, Eber first inoculated guinea-pigs with human tuberculosis and then conveyed the bacillus from the guinea-pigs to cattle. In eight experiments of this sort the human TB. was found to be avirulent for cattle in two, moderately virulent in two, and strongly virulent in four. That this variation in virulence has little to say concerning the question of a radical difference between human and bovine tuberculosis, is evident from further experiments of E.'s which make it plain that even in inoculating direct from cattle to cattle the bovine germ shows marked variations in its virulence.

Having shown that by using the guinea-pig as an intermediate host it is nearly or quite as easy to convey human tuberculosis to cattle as to convey the bovine disease direct from animal to animal, he criticises the results of the work which has been carried on at the Gesundheitsamt since Koch's pronouncement, by Kossel, Weber and Heuss. These observers (with others) hold that there are two distinct types of TB. in mammals, the bovine and the human type. The distinctions are based on certain cultural and morphological differences which Eber holds are unstable and unimportant; but even if the distinction is allowed, we must be startled by the fact that even these supporters of Koch found in sixty-seven cases of human tuberculosis no less than eleven patients with the bovine type of the bacillus. This can mean only one of two things, either that there is no constant and essential difference between the types, or that more than 15 per cent. of the tuberculous human beings have obtained the disease either directly or indirectly from the lower animals; and in either event the statement and advice of Koch cannot be regarded as other than rash and dangerous.—GIFFORD, Omaha.

A Plea for Operative Interference in Intracranial Hemorrhages in the Newborn.—(E. Scott Carmichael, Scottish Med. and Surg. Journal, June, 1906.)—Our attention was first called to the frequency of intracranial hemorrhages in the newborn by Sarah M. Nutt. These hemorrhages occur on the surface of the brain or at the base of the brain and are meningeal. When on the surface they are usually bilateral and are greater over the central region and toward the middle line. The hemorrhages at the base usually surround the pons and medulla, beneath the tentorium cerebelli. The basal hemorrhages are common to breech cases, and these are almost always fatal at or near the time of birth. The cortical hemorrhages are less frequently fatal and bring about various degrees of spastic paralysis. If the treatment is to be efficacious it should be at a time when the hemorrhage is fresh. It is important, therefore, to consider the clinical signs of intracranial hemorrhages in the newborn. In the first place the labor is usually prolonged and difficult. Signs of asphyxia develop soon after the birth of the child, and later there is a manifest difficulty in swallowing. Convulsions may ensue, with persistent rigidity of the limbs and inversion of the thumbs; and again, one or all of the extremities may be paralyzed. When convulsions do not terminate fatally they usually cease in a week or two after birth.

A firm, non-pulsating bulging of the anterior fontanelle is an important sign.

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Where there is doubt as to the presence of an intracranial hemorrhage a lumbar puncture should be made, because the cerebrospinal fluid will be found to contain blood in the majority of cases.

When the diagnosis is established beyond doubt, one or both cerebral hemispheres are exposed by an osteoplastic resection of the skull, the accumulated blood is washed from the cortex and the flap of bone and soft tissue is replaced and sutured.

The following points are emphasized by the author:

1. The importance of examining the skull and its contents in all dead-born children, and in those who die shortly after labor with symptoms of asphyxia.

2. Asphyxia is the most common exciting cause of hemorrhage.

3. The advisability of lumbar puncture in all cases of severe asphyxia, especially when the anterior fontenelle is bulging.

4. The importance of early operation in all cases where symptoms persist for a few days, especially when convulsions are present.—PALMER FINDLEY.

Mitral Stenosis and Pregnancy.—(Herbert French, H. T. Hicks, The Journ. of Obstet. and Gyn. of the British Empire, September, 1906.)—"There are certain points in regard to valvular heart disease and pregnancy upon which there is general agreement. These we do not propose to discuss further, because they appear to be well established. They are the following:

"1. Of all the varieties of chronic valvular heart disease, mitral stenosis is the most commonly accompanied by heart failure during pregnancy.

"2. Aortic lesions without mitral are rare in women; Few cases of pregnancy in women who have aortic without mitral disease come under observation.

"3. When symptoms of heart failure have preceded pregnancy they are made worse by pregnancy.

"4. Repeated pregnancies at short intervals cause greater risk of heart failure than do few pregnancies at longer intervals.

"There are, on the other hand, some points upon which there is not the same agreement. Among these, one of the most important, perhaps, is the question of whether a young woman with mitral stenosis should marry. It is to this question in particular that we devote our attention in the present paper."

The following summary is given:

"We believe that heart failure is to be expected sooner or later in almost all cases of valvular heart disease.

"We do not deny that pregnancy may cause serious, and even fatal, cardiac failure in cases of mitral stenosis.

"We think, however, that the dangers of pregnancy in these cases have been overstated.

"We attribute the overstatement to the fact that previous statistics have been based mainly upon cases of mitral stenosis which came under observation because heart failure had developed during, or soon after, pregnancy. We feel that statistics so obtained leave out of count all those patients with mitral stenosis who go through pregnancy without developing cardiac symptoms.

"We have tried to obviate this course of error by analyzing the obstetric histories of 300 women over 20 who had mitral stenosis with or without other lesions. We have not selected our cases, but have taken them consecutively as they came into Guy's Hospital.

"We conclude:

"1. That comparatively few are sterile.

"2. That they are not especially liable to abort.

"3. That the majority bear children well.

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"4. That when heart failure developed in relation to pregnancy it is very often not with the first pregnancy, but after several pregnancies.

"5. That the treatment should be the same as for a non-pregnant patient with mitral stenosis.

"6. That it is not just to absolutely negative marriage in all women with mitral stenosis. The dogmatic 'no' of Jellett and of Porak is, we think, unjustifiable. It is right that the physician should make clear to the contracting couple, or to their near relatives, the risk run. He should use his discretion, and distinguish between one case and another. The risk should not be minimized, but it should not be exaggerated. Whether the woman marry or not, it is likely that she will not reach old age. She should not have successive children rapidly. But if she has survived the age of 20, with good cardiac compensation, the likelihood that pregnancy will accelerate the time of heart failure does not seem to be so great as has been declared in text-books."—PALMER FINDLEY.

Necrology.

EDWARD EVERETT WOMERSLEY was born at Amesbury, Mass., January 27, 1851. When he was three years of age his family removed to Fall River, Mass., and here he resided till about 20 years of age. His education was secured in the public schools of Fall River. Having come west to visit relatives, he decided to enter the regular army and enlisted at Leavenworth, Kan., about 1870, and served for five years in Company H, 8th U. S. Cavalry. He was appointed first sergeant, and later hospital steward and held the latter position till the time of his discharge. He made a most estimable record in the army and held letters of cordial commendation from his superior officers. After the close of his army service he returned to Fall River and read medicine for three years in the office of Dr. Charles Copeland. At the same time he was superintendent in a department of one of the cotton factories of the city. He then went to Washington, D. C., and secured an appointment as clerk in the War Department, and at the same time entered the Medical Department of Columbia College and pursued his studies for three years while also performing his duties as clerk. He was graduated in the spring of 1883. He was married September 24, 1882, to Miss Helen M. Peckham, of Omaha. They made their home for a year and a half in Washington and then in 1884 came to Omaha. The doctor at once entered into practice here and continued till the date of his death, August 3, 1906.

Your committee offers the following resolution:

OMAHA, NEB., October 5, 1906.

Whereas, Dr. Edward Everett Womersley was, on August 3, 1906, removed by death: Therefore,

Resolved, That we, members of the Omaha-Douglas County Medical Society in regular session held October 9, 1906, do hereby express our admiration of his high moral and professional character and mourn the departure of our departed brother.

Resolved, That we tender to the widow and other members of his family our sympathy and condolence in this their great sorrow and most greivous affliction.

Resolved, That this report be spread upon the records of the society and that a copy be furnished Mrs. Womersley and that they be published in the MEDICAL REVIEW. (Signed) RICHARD C. MOORE,
D. C. BRYANT,
JOHN E. SUMMERS,
Committee.

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JAMES HENRY PEABODY, born in Washington, D. C., March 7, 1833. Boyhood passed in Washington and schooling obtained in private schools. At the age of 13 entered House of Representatives as a page, in which capacity he served six years, when he entered the Pension office. During this time, as was customary, he attended night school, obtaining a good education and graduating in medicine from the University of Georgetown in 1860. In May, 1859, he married Miss Mary Virginia Dent, of Louisville, Ky., by whom he had one son, John Dent, now practicing medicine in St. Petersburg, Fla. At the outbreak of the war of the Rebellion he applied for position on the medical staff and was appointed assistant army surgeon, U. S. army. In August, 1863, he was appointed brigade surgeon by President Lincoln and sent in 1864 to Omaha as medical director of Department of the Platte. From this date he called Omaha his home, although at the close of the war he was major surgeon in charge of St. Louis Hospital. He resigned his commission at this time, that he might be with his invalid wife, who died shortly afterwards in St. Louis. Coming thence to Omaha he was appointed assistant surgeon, U. S. V., which office he held for ten years. In 1867 he married his second wife, Eliza J. D. Yates. One child was born of this union but died within a year. He was active in his profession, giving his services freely to rich and poor alike. A man of superb physique, he seemed never to tire, and it was his joy to endeavor to aid suffering humanity always and everywhere. His connection with the Nebraska Medical Society is well known; was president in 1870, and some of his contributions to medical literature have been widely read and followed. His chief pleasure and recreation was with the dog and gun, and old records of the Omaha Gun Club testify as to his skill in the field. He was a member of Capital Lodge No. 3, Loyal Legion, and Trinity Episcopal church.

As a suitable tribute to the memory of Dr. Peabody, your committee suggest the adoption of the following preamble and resolutions: The resolutions were introduced by Dr. Peabody and passed by the State Medical Society in commemoration of the death of Dr. August Roeder. I have simply substituted the name of Dr. Peabody for that of Dr. Roeder. Dr. Peabody's beautiful Christian character is so aptly expressed by his own words that we cannot in more fitting words express our admiration of this truly consistent Christian. The resolution was adopted at the meeting held in Omaha, June 7, 1870, at which meeting Dr. Peabody presided as the third president (transactions of the third annual meeting, page 37):

Whereas, It has pleased Almighty God, in His infinite wisdom, to remove from among us our friend and associate, Dr. James Henry Peabody, who was endeared to us who knew him by his stern integrity of character, unswerving devotion to his profession and the great interest manifested in the organization and welfare of our society, his uniform kindness and the great purity of his character.

Whereas, In his death the medical profession has lost one of its learned, zealous and exemplary members: Therefore,

Resolved, That in the death of Dr. Peabody we recognize the loss to our society of one of its best and purest members, one who has ever been interested in the welfare of it and the profession and who has done all in his power to promote the good of both.

Resolved, That while we bow with reverence to the decree of that God who has called him from among us, we claim the privilege of pointing to his record of life and character as worthy of imitation by all who would attain that place in the affections of their fellowmen which it has been his lot to enjoy, and who would wish it to be said of them as we now say of him: "May the memory of your life be ever green in the memory of your associates."

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Resolved, That the family and friends of the deceased be tendered our heartfelt condolence and sympathy.

Resolved, That these resolutions be placed on the records of the society and a duly certified copy be transmitted to his family, signed by the officers of the association.

Resolved, That a copy of this report be furnished the MEDICAL REVIEW for publication. (Signed) RICHARD C. MOORE,
D. C. BRYANT,
JOHN E. SUMMERS,
Committee.

Society Proceedings.

THE Merrick County (Neb.) Medical Society met at the Schiller hotel in Central City, October 8, and partook of a banquet followed by an address by Dr. Palmer Findley of Omaha. The session lasted till the small hours of the morning.

THE Boone County (Neb.) Medical Society held its regular semi-annual session Tuesday afternoon, October 2, in Albion. A goodly number were present and papers were read by Drs. Johnson of Petersburg, Thompson of Albion, Brittell of St. Edward, and Clark of Albion. A banquet was held at the Albion house and Professor Findley, of Omaha, gave an interesting talk.

DR. W. R. YOUNG, of Ansley, Neb., councilor of the ninth district, called a meeting of the physicians of Sherman county, Nebraska, for the purpose of organizing a medical society. An organization was perfected and the following officers were elected: Dr. A. S. Main, president; Dr. J. H. Long, vice-president; Dr. L. F. Dickinson, secretary and treasurer, and Dr. A. E. Wanek, delegate to the State Association. Drs. Hendrickson, Kearns and Rydberg, of Litchfield, were elected censors. At the close of the session the doctors were entertained by Dr. and Mrs. Main at their pleasant home.

THE Wyoming State Medical Society met recently in Casper and was attended by a large number of physicians from all over the state. The following new officers were elected: Dr. A. C. Godfrey, of Lander, president; Dr. F. A. Dean, of Casper, first vice-president; Dr. C. E. Stevens, of Sheridan, second vice-president; Dr. G. E. Bristol, of Evanston, third vice-president; Dr. G. L. Strader, of Cheyenne, hold-over secretary; Dr. A. Francis Hauff, of Casper, hold-over treasurer. Lander was chosen as the place for holding the next annual convention. Dr. A. C. Godfrey was elected delegate to the A. M. A. which meets in Atlantic City, N. J., in 1907. Drs. G. L. Strader, of Cheyenne, and Oliver Chambers, of Rock Springs, were named as alternates. The program contained many interesting papers by physicians of the state.

THE Omaha-Douglas County Medical Society met in the Commercial Club rooms on the evening of October 9, 1906.

Dr. A. B. Somers recited his experience with a recent case of puerperal eclampsia. His treatment was the feature most worthy of note. He delivered the patient immediately, administered 30 grs. of chloral hydrate and injected hypodermically 15 drops of Norwood's tincture of veratrum viride. The latter was repeated at intervals till about 60 drops had been given in less

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than an hour and the pulse was reduced to 50 per minute. The patient made a good recovery.

Dr. W. H. Christie reported a case of convulsions about the third month of pregnancy due to uremic poisoning accompanying a nephritis caused by two teaspoonfuls of oil of turpentine taken probably as an abortifacient. All efforts to relieve the inflamed organ by using other avenues of excretion proved unavailing and the patient finally succumbed.

Dr. D. C. Bryant read a paper on "Reflex Neuroses from Eye-Strain," in which he showed a very wide range of reflex results from ocular defects which necessitate unusual effort on the part of either the intrinsic or extrinsic muscles of the eye. The paper was discussed quite freely.

Dr. Chas. O'Neill Rich read a paper on "The Necessity of Early Diagnosis in Cancer of the Uterus," which provoked a very liberal discussion and emphasized many important points in the diagnosis and treatment of this disease.

Dr. H. M. McClanahan gave a quite comprehensive review of the causative features of the present diphtheria epidemic in Omaha and suggested measures for its restriction. The subject was quite generally discussed and Dr. Connell, city physician, expressed the desire of the city health department to cooperate with the physicians in every way possible in an effort to control this epidemic.

On the whole this meeting was one of the most largely attended and generally interesting and helpful of the season. J. M. AIKIN, Secretary.

Medical Society of the Missouri Valley.—The nineteenth annual meeting of this society was held at Council Bluffs, September 6 and 7, with an attendance of 125, Dr. Jno. E. Summers presiding. The program included twenty-five papers, and the discussions were most interesting and instructive. Among the guests at this meeting, who read papers, were Dr. Emil Reis, of Chicago; Dr. L. L. Uhls, superintendent of the State Hospital for Insane, Osawatomie, Kan.; Dr. Leo M. Crafts, Minneapolis; Dr. Alfred Schalek, Omaha; Dr. E. W. Clark, president of the Iowa State Medical Society, who responded to the address of welcome given by Congressman Smith of Council Bluffs. The society was royally entertained by the local members at the street carnival, and given a reception at the Elks Club. Dr. O. Beverly Campbell, of St. Joseph, was unanimously chosen as president of the society for the ensuing year, and other officers were elected as follows: Dr. W. F. Milroy, Omaha, first vice-president; Dr. C. O. Thienhaus, Milwaukee, second vice-president; Dr. Donald Macrae, Council Bluffs, treasurer (re-elected); Dr. Chas. Wood Fassett, St. Joseph, secretary (re-elected). The secretary's report showed the prosperous condition in which the society finds itself at the close of the year, having gained forty-four new members and losing but one. The annual Missouri Valley excursion to the A. M. A. was made a subject of special comment, and the secretary expressed the opinion that the next trip to Atlantic City would be even more enjoyable, if possible, than the last. Following is a list of members admitted at this meeting: Robert R. Hollister, F. W. Lake, L. B. Bushman, Alfred Schalek, S. Cole Little, and C. W. Pollard, of Omaha; J. H. Gassan, Albert V. Hennessy, T. B. Lacy, Jr., John F. Sprink, of Council Bluffs; Halsey M. Lyle, Kansas City; William H. Chapman, Ingleside, Neb.; William H. Anderson, Dunlap, Ia.; J. N. Medill, Persia, Ia.; J. R. Hollowbush, Rock Island, Ill.; James W. Lehan, Dunlap, Ia.; C. V. Artz, Hastings, Neb.; H. P. Duffield, Marshalltown, Ia.; Charles L. Mullins, Broken Bow, Neb.; W. R. Young, Ansley, Neb.; H. D. Spencer, Oakland, Ia.; W. F. Pierce, Carson, Ia.; L. L. Uhls, Osawatomie, Kan. The papers and discussions will appear in the Medical Herald, the society's official journal.

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WESTERN MEDICAL REVIEW

A JOURNAL OF MEDICINE AND SURGERY.

Published Monthly by WESTERN MEDICAL REVIEW COMPANY,
701 Paxton Block, Omaha, Nebraska. Per Annum, $2.00.

The WESTERN MEDICAL REVIEW is the official organ of the Nebraska State Medical Association and is sent by order of the Association to each of its eight hundred members.

A. L. MUIRHEAD, M. D., EDITOR.

Entered as second-class mail matter at Lincoln, Nebraska, post-office under the Act of March 3, 1879.

VOL. XI. LINCOLN, NEB., NOVEMBER 15, 1906. NO. 11.

THIS issue announces a change in the management and ownership of the WESTERN MEDICAL REVIEW, it having been purchased by a number of Omaha physicians, not as an investment but to hold in trust for the medical profession of the state and prevent its passing into the hands of commercial or private interests. It is hoped that the Douglas County Medical Society, the Elkhorn Valley Medical Society and all similar organizations in Nebraska, as well as the State Association, may endorse this action and co-operate to make the REVIEW a creditable and useful exponent of the medical thought of this and adjacent states. It is also hoped that the State Association may see fit to assume control and perhaps become owner of this publication. The aim of the management will be to make the REVIEW not only the official organ of the medical societies of the state, but also the mouthpiece of each individual physician who has something to communicate of general medical interest. It will also be their aim to keep these pages supplied with practical and scientific contributions from the leading medical men of this and surrounding states, as well as abstracts and reviews from the best medical literature of all countries. Our readers are cordially invited to make use of the REVIEW as an exponent of their ideas on all matters of a medical or scientific character, or along any other line of sufficient and general interest to the profession at large.

All communications relating to the WESTERN MEDICAL REVIEW should be addressed to A. L. Muirhead, M. D., 4248 Burdette Street, Omaha, Neb.

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PROPRIETARY MEDICINES.

Various terms are used to designate medicinal preparations not recognized by pharmacopœias or other standard lists. The term "nostrum" is applied to a medicinal compound made up of inert or common and well known drugs, to which is ascribed curative properties not possessed by the ingredients. The term "patent" is usually a misnomer when applied to a medicine, as the preparation or formula is not usually patented, but the name is protected by a copyright. The term "proprietary" is used by some writers to describe a preparation of a medicinal nature, the name of which has been copyrighted and the composition of which is not revealed by its manufacturer; by others it is used to designate any preparation the name of which has been copyrighted, even although the formula appears upon the label; and by still others it is used to include any medicinal substance, even though the name be not copyrighted, of which the process of manufacture is kept secret. It would seem that these different classes should not be considered as equally objectionable. While it is conceded that a physician cannot intelligently prescribe a preparation the ingredients of which are unknown to him, it must be acknowledged that he can often use with advantage to himself and his patients many preparations the composition of which he knows, but the method of manufacture of which is held a secret. For example, a physician wishes to use a mixture of tincture of digitalis and tincture of the chloride of iron in solution, but finds these ingredients incompatible. He finds that some one else has found a method of combining the substances mentioned in a manner that overcomes the incompatibility and are offering the product for sale, but will not reveal their process; is there any good reason why he should not prescribe it? Is not the discoverer of the method of manufacture as much entitled to the product of his skill as the discoverer of a new mechanical device? The reasons for the very general use of proprietary and secret preparations by medical practitioners are not difficult to find:

1. Lack of sufficient knowledge of the action of drugs upon the human organism and its various organs is the reason why many

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physicians use or prescribe ready-made preparations instead of writing magistral prescriptions. When a sleek and subtle salesman for some pharmaceutical house assures him that his special brand of diuretic solution is the ideal and only remedy for Bright's disease, he takes him at his word and uses it, when he ought to know that some of the ingredients are not only useless but actually harmful in the condition in which he is using it.

2. Lack of proficiency in prescription writing is another cause for the extensive use of ready-made prescriptions. The physician may know what he wants to use and how it will act in the body, but cannot get his drugs in a palatable and convenient form for administration, and so he has recourse to some proprietary or secret preparation. Would it not be better to seek the advice of a competent pharmacist rather than turn the matter over to the commercial manufacturer entirely? The general tendency towards simplicity in prescription writing should be an aid and encouragement to all practitioners to write magistral prescriptions more frequently than they do.

3. Another and a constantly increasing reason for using ready-made prescriptions is dispensing by physicians. When a doctor decides to put up his own medicines he usually has neither the time nor the skill necessary to carefully compound all the preparations his work calls for, so he fills his shelves with ready-made preparations, often of inferior quality as to drug strength, and usually liquids which are easily and quickly dispensed. He then gives each case the preparation on hand which most nearly fills the requirements. Often he administers a diffusible liquid preparation when the case really requires an insoluble powder, simply because he has not the time to put up the powders properly.

The remedies for this ready-made prescription habit are simple enough but not so easy of administration:

1. Better education in pharmacology and prescription writing.

2. A better understanding and closer business relation between the physician and the pharmacist. If each would concede a little to and get better acquainted with the other he would find that he is not so bad as he appears at a distance, and a closer relation of mutual helpfulness would prove a decided benefit to both.

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Notes and News.

DR. W. F. ROWE, of Albion, Neb., has located in David City.

DR. FRED ALBERT, of Reinbeck, Ia., has located in Mason City, Ia.

DR. E. B. LEFEVER, of Abilene, Kan., died recently in Danville, Ill.

DR. R. B. MAYS, of Garden City, Kan., has located in Lebanon, Kan.

DR. B. W. BURLEIGH, of Valley, Neb., has decided to locate in Hartington.

DR. SLAGLE, of Smith Center, Kan., has gone to Chicago for post-graduate work.

DR. CHAPEK, of Fremont, Neb., will locate in Howells, Neb., his former home.

THE Hiawatha, Kan., hospital will be open for business about November 15.

DR. H. J. ARNOLD, of Columbus, Neb., has decided to locate permanently in California.

DR. SPALDING, of Omaha, was in Beatrice, Neb., recently investigating the diphtheria situation there.

DR. J. M. BROWN, of Fremont, Neb., has recently returned from a visit to his old home in Virginia.

DR. E. B. HAMEL, of Byron, Neb., was married recently to Mrs. Jennie M. Gross, of Marshalltown, Ia.

DR. L. R. PHEASANT, of Pierce, Neb., was married October 25 to Miss Ethel Chilvers, of the same town.

THE new Swedish hospital at 1334 East Eighth St., Kansas City, Mo., was opened to patients October 28.

DR. J. M. ALDEN, formerly superintendent of the Norfolk hospital for insane, has returned to Pierce, Neb.

DRS. WENTE AND HUMPHREY, of Lincoln, Neb., have dissolved partnership. Dr. Wente retains the present office.

DR. F. W. LEEPER, of Oakland, Neb., a pioneer physician of the Logan Valley, died at his home October 22.

DR. WM. G. MILLER will succeed Dr. McCallum as surgeon at Ft. Russell, Wyo. Dr. McCallum goes to Honolulu.

DR. AND MRS. ILES, of Chanute, Kan., returned recently from an extended visit in Colorado, Idaho and Washington.

DR. D. F. GOLDING, of Peoria, Ill., has located in Fremont and will engage in the practice of his profession there.

DR. H. A. WIGTON, of Omaha, was appointed assistant superintendent of the hospital for insane at Lincoln, recently.

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DR. BUTLER COOPER, of Ankeny, Ia., son of Dr. John Cooper, of Des Moines, died recently after a prolonged illness.

DR. F. L. BECK, of Ong, Neb., has purchased the practice of Dr. George Mozee, of Geneva, Neb., and located in that city.

A HOME for actors and actresses who have contracted pulmonary tuberculosis is to be founded and maintained in Colorado.

DR. O. W. OBERLIN, of Boone, Ia., has located in Shenandoah and will occupy the office of Dr. W. H. C. Moore, who has retired.

DR. JONES, a Kansas pioneer, who has practiced medicine in Chanute for the last thirty years, died recently at his home near that city.

DR. F. W. PLEHN, of Pawnee City, Neb., is soon to become associated with Dr. Emerson, of Gering, Neb., in the practice of medicine.

DR. FRANK JENSEN, of Newman Grove, Neb., and Miss Rose E. Batton, of Plattsmouth, were married in the latter place on October 25.

DR. HAL. SMITH, of Brownville, Neb., has sold his practice, and, after taking a post-graduate course in Chicago, will seek a new location.

DR. GUSTAV HAHN, of Omaha, returned recently from an extended European trip. He spent about three months in the hospitals of London.

WORD has been received in Omaha of the safe arrival of Dr. C. W. Mason and wife in Siam, where the doctor has gone as a medical missionary.

DR. AND MRS MORTLOCK, of Blair, Neb., have gone to Chicago to consult a specialist in regard to the doctor's health, as he has been ill for some time.

DR. J. L. WEBB, of Beatrice, Neb., was knocked down by a frightened horse on the streets recently and injured considerably though not dangerously.

DR. J. H. SHRADER, of Iowa City, Ia., one of the founders of the medical department of the state university, died at his home on October 30 at the age of 73.

DRS. STOKES, of Omaha, and Mayhew, of Lincoln, delivered addresses at the meeting of the Custer County Medical Society in Broken Bow the evening of November 13.

THE commissioners of Douglas county, Neb., are about ready to ask for bids for the building of a tuberculosis ward at the county hospital, the plans for which have been accepted.

THE superintendent, two internes, and about thirty nurses of the Methodist hospital, Des Moines, Ia., were poisoned recently by eating gooseberry pie which was found to contain arsenic. All recovered.

THE public school authorities of West Des Moines, Ia., have placed a trained nurse in the schools for the purpose of examining children's throats for diphtheria, with the hope of warding off an epidemic.

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Original Articles.

DYNAMIC EFFECTS OF ANTIPNEUMOCOCCIC SERA IN PNEUMONIA.*

J. STANLEY WELCH, B. S., M. D., LINCOLN, NEB.

(Concluded from October number.)

CASE IV.—Mr. A.; entered the hospital April 21, on the fourth day of his illness. His pulse was 128, full and strong; respiration rapid and temperature high.

During the observations no change occurred in the blood pressure; the leukocytes remained the same; the agglutination reaction was present before and after the use of the antiserum for the pneumococcus isolated from the patient's blood and for foreign pneumococci; the chlorides increased from 23.1 to 24.6; the albuminuria remained 1.2 per cent. Clinically he seemed slightly improved.

CASE V.—S. D.; entered the hospital April 25. His symptoms were not alarming, but there was a well defined right lower lobe consolidation.

During the observations the blood pressure decreased from 149 to 136, the only one of the series not showing an increase; the leukocytes decreased from 8,380 to 7,421, with practically no relative change; the agglutination reaction was present in high dilutions both before and after the use of the antiserum for the pneumococcus isolated from the patient's blood, but was negative for other pneumococci before and but slightly present afterwards; the chlorides in the urine were not properly estimated in this case and the results thrown out; the albuminuria remained 10 per cent. Clinically the case seemed unchanged.

CASE VI.—R. L., an Italian laborer; entered the hospital April 28. The day of the illness not recorded. Pulse 114; respirations rapid: temperature 103°.

During the period of observations the blood pressure increased from 122 to 144.3; the leukocytes decreased from 13,033 to 10,336,

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Tabulated results of observations taken before and three hours after the subcutaneous administration of 20 cc. of anti-pneumococcic serum.

Observations	Before						After						Variations					
Case	I.	II.	III.	IV.	V.	VI.	I.	II.	III.	IV.	V.	VI.	I.	II.	III.	IV.	V.	VI.
Blood pressure	137.15	135 5	128.75	165.33	149	122	*	138.66	136.25	165.66	136	144.33	*	+3.16	+8.5	.33	−13	+22.33
Leukocytes —																		
I. Number	6,733	24,133	11,953	20,150	8,380	13,033	*	22,733	8,650	20,133	7,421	10,366	*	−1,400	−3,303	−17	−959	−2,667
II. Kinds —																		
(*a*) Polynuclear, per cent	71	80	88	77	85	72	*	90	90	83	84	77	*	+10	+2	+6	−1	+5
(*b*) Mononuclear and transitional, per cent	18	18	7	10	5	7	*	8	6	10	6	10	*	−10	−1	0	+1	+3
(*c*) Lymphocytes, per cent	4	2	3	13	10	21	*	6	4	7	10	13	*	+4	+1	−6	0	−8
(*d*) Eosinophiles, per cent	7	0	0	0	0	0	*	2	0	0	0	0	*	+2	0	0	0	0
Agglutination reactions —																		
(*a*) Isolated pneumococcus	+1—60	+1—30	† +1—30 +1—15	+1—60	+1—60	+1—30	*	0	† +1—25 0	+1—60	+1—60	+1—45	*	—	+−	ditto	ditto	+
(*b*) Foreign pneumococci	+1—45	0	0	+1—60	0	0	*	0	0	+1—60	0	0	*	0	0	ditto	0	0
Urine —																		
(*a*) Chlorides	26	25	18.1	23.1	35	20.9	*	31.6	17.35	24.6		22.5	*	+6.6	−.75	+1.5		+1.6
(*b*) Albumin, per cent	7	3.4	Pres.	1.2	10	Trace	*	3.4	Pres.	1.2	10	Trace	*	ditto	ditto	ditto	ditto	ditto

* Patient died before the second observations were taken.

† Case III had a double infection: (*a*) diplococcus of pneumonia; (*b*) Friedlander bacillus.

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the polynuclear, mononuclear and transitional increasing, while the lymphocytes decreased; the agglutination reaction increased slightly for the pneumococcus isolated from the patient's blood, but remained negative for other pneumococci; the chlorides in the urine increased slightly while the trace of albumin remained present. Clinically the only change was the increased pulse-rate.

The dynamic effects may be summarized as follows: the blood pressure showed a rise in all cases but one, the average increase being 5.46; the leukocytes decreased in every case, the average fall being 1669, and of the varieties there was a 4.4 per cent. relative increase of the polynuclear, 1.4 per cent. decrease of the mononuclear and transitional, and 1.8 per cent. relative decrease of lymphocytes; the agglutinins were but slightly increased for the infecting pneumococcus, while for other pneumococci they remained the same; the chlorides of the urine increased in all cases but one, the average being 2.25; the albuminuria remained the same in all cases.

CONCLUSIONS.

I. The dynamic effects of antipneumococcic sera in pneumonia are so slight as to seem of no importance.

II. The toxemia and pneumococcic septicemia remain apparently unaltered by the use of the sera.

I wish to thank Dr. Edward F. Wells, of Chicago, and also the authorities and the physicians of Cook County Hospital for valued assistance rendered in this work.

BIBLIOGRAPHY.

I. Therapeutic Monthly, July, 1901.

II. Proceedings of the Phil. County Medical Society, vol. XXII, p. 154.

III. The Journal A. M. A., December 10, 1904, p. 1777.

IV. The Journal A. M. A., October 14, 1905, p. 1151.

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THE TREATMENT OF PLACENTA PREVIA BY CAESAREAN SECTION, WITH REPORT OF TWO CASES.*

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I wish to present to this society the history of two cases of placenta previa centralis which have come into my hands and upon which I performed Cæsarean section.

CASE I.—Mrs. L., age 36, multipara, was brought to the hospital at 1 a. m. on December 5, 1905, by Drs. Nesbit and Arthur from Tekamah, Neb. She gave the following history: Was married November 11, 1897. Her first child was born February, 1899. This labor was normal and easy, as were also her two succeeding confinements. In April, 1904, she aborted at the third month, at which time she flowed considerably. Since the abortion the patient stated she has never been perfectly well.

Last menstrual flow the 11th of March, 1905. In August, 1905, she had the first hemorrhage, which was slight. The second hemorrhage occurred in September, 1905, and was more profuse than the first, but she did not consult her physician. The third hemorrhage, which was quite profuse, occurred three weeks before her operation. On December 4, 1905, she was taken with severe bleeding. Dr. Nesbit was called, and after an examination the condition of placenta previa centralis was diagnosed, and Dr. Arthur of Omaha was called in consultation. The attending physicians, realizing the seriousness of her condition, brought her at once to the hospital. The hemorrhage had ceased, there being only slight oozing, which was increased by the examination. She had had no pain. I found the os dilated to the size of a half-dollar, somewhat rigid and completely covered by the soft, boggy placenta. The child was alive; the woman was in a very anemic state from excessive loss of blood; pulse 120 and weak. Cæsarean section was determined upon as being the safest procedure for both mother and child. She was prepared and the operation done according to the technic which I shall presently describe.

* Read before the Nebraska State Medical Association, Lincoln, Neb., May 1 to 3, 1906.

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The time consumed from the beginning of the anesthetic until the child was delivered through the abdominal wound was just six minutes; entire operation occupied twenty-five minutes. The uterus contracted nicely; there was no difficulty in removing the placenta and no paralysis of the lower uterine segment; the hemorrhage being less than in a normal labor. The child cried immediately and showed no signs whatever of asphyxia. It appeared well developed and at term. The wound healed by primary union and the patient made an uneventful recovery. The mother and child left the hospital at the end of two weeks' time.

CASE II.—On the night of December 26, 1905, Dr. Houghton and myself were called by Dr. Arthur to see Mrs. B., who gave the following history: Age, 22 years; one child, aged two years. In December, 1904, she had a miscarriage at five months. The patient was not certain about the present pregnancy, but believed herself to be within six weeks of term. While sitting at supper on the evening of the 26th she suddenly felt a profuse vaginal discharge, which upon examination proved to be blood. The hemorrhage was so profuse that she did not attempt to get into bed alone, but was assisted by a neighbor woman who was in her home at the time. Dr. Arthur was called and made the diagnosis of placenta previa. The patient had had no pain and no previous hemorrhage.

Dr. Houghton and myself saw the case a couple of hours later and verified the findings of Dr. Arthur. The os was dilated only to admit the index finger, which came in contact with the placenta. A vaginal tampon was inserted. The patient was removed to the hospital in an ambulance. In three hours the vulvar dressings were saturated, and the section was immediately done. The child was alive and in good condition, and, while not large, appeared well developed. The uterus contracted well; and, while the hemorrhage from the placental site was more profuse than in Case I, it was not alarming and was quickly controlled by hot packs. The placenta was attached more to the left and the internal os was covered by its right margin. Had there been more dilatation we would probably have been able to have felt the edge of the placenta by vaginal examination. The cut edges of the uterus bled consid-

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erably but the bleeding was checked by compression with Doyen intestinal clamps. The time of the operation was thirty minutes. The case progressed nicely until the fourth day, when she developed some temperature. An intrauterine douche was given and some retained clots were washed away. She carried several degrees of temperature for about a week. This symptom subsided; there was no abdominal tenderness and no distension, and the wound healed by first intention. The patient made a good recovery. Mother and babe left the hospital at the end of a month.

The following technic was used in the above cases: Before the operation the patient received 60 minims of an equivalent of the fl. ext. of ergot hypodermatically. The patient was then placed upon the table and the abdomen prepared ready for the incision before the anesthetic was begun. Chloride of ethyl with ether sequence was the anesthetic used. An incision was made through the left rectus muscle, commencing two inches above the umbilicus and extending four inches below. In the latter weeks of pregnancy the bladder becomes elevated in front of the lower uterine segment until it is practically an abdominal organ, so that, in making the abdominal incision this fact must be kept in mind. Large sponges were packed around the uterus. It is unnecessary to bring the uterus outside of the abdominal wound except in cases where one is suspicious of an infection within the uterus. To bring out the uterus one must make a much longer incision; there is more trauma to the abdominal contents, and unnecessary tension upon the pelvic ligaments. The edges of the wound were retracted by an assistant, and a longitudinal incision of several inches was made through the uterus down to the membranes but not through them. Then with the scissors the uterine incision was enlarged until about the same length as the abdominal. Avoid making the incision toward the cervix, but as much upon the fundus as possible, on account of the vascularity of the uterus in the region of the cervix. If there is much bleeding from the cut surface of the uterine walls, as there was in Case II, the hemorrhage can be controlled by applying a long-bladed forcep with a light spring, such as a Doyen intestinal clamp, using just enough force to com-

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press the vessels but not sufficient to bruise the tissues. The membranes were ruptured with the scissors and the child extracted, taking hold of the part which first presented. In both cases here reported the presentation was a vertex.

The cord was cut between two clamps and the child given to an assistant. A few minutes' time was allowed for the uterus to contract and for the placenta to loosen naturally. If the placenta does not loosen it can be removed with the hand. The uterus was then packed with hot compresses to check the bleeding.

An assistant should be instructed as to how to compress the uterine arteries in case the uterus does not contract and check the hemorrhage from the placental site. The placing of the elastic ligature before opening the uterus is unnecessary and one can see how it might do harm. The uterine cavity was closed with a continuous suture of No. 4 plain catgut. The continuous row was begun at the cervical extremity of the incision; this was reinforced with three or four interrupted sutures of the same. The peritoneum, where not closely approximated, was brought together with fine catgut sutures, similar to a Lembert.

The abdominal wound was closed by overlapping the aponeurosis in the same manner as in the Mayo operation for umbilical hernia. If closed in this way there is very little danger of a hernia developing in the cicatrix. Before the abdomen was closed several liters of normal salt solution were poured in.

It is not my intention in presenting this paper to go into the etiology and symptomatology of placenta previa, which you can get better in the various text-books, nor to tire you with the various opinions of obstetricians and surgeons upon this subject, but simply to present a few personal reasons for believing Cæsarean section to be the proper procedure in cases of central implantation of the placenta where the child is alive and viable. In lateral implantation, other methods of treatment give a fairly good chance to both mother and child; in these cases one may act conservatively.

The condition of placenta previa is difficult and trying to the general practitioner when he is so situated that he can not call a specialist to his aid. However, as a rule, I believe that the physi-

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cian is just as capable of doing a Cæsarean section in an emergency as he is to pass two fingers through an undilated os, in a case of a centrally attached placenta, and do a podalic version.

Dr. Deaver, in an article on "Cæsarean Section for Placenta Previa," which appeared in the Journal of the A. M. A., April 30, 1904, makes the following remark: "I selected Cæsarean section as the lesser of the two evils, and as an operation with whose technic I was more familiar, and, therefore, one with which I was more likely to have success than with podalic version under such unfavorable circumstances." For this assertion he has been unjustly criticised in articles and in discussions which have since been published. Dr. Deaver has been quoted as meaning that he was incapable of doing a podalic version and therefore did the section. This he did not mean, but he did the section because he could do it more cleverly under the circumstances, and because he believed by a section he would give the mother and child the best chance of living. Had he thought a version and extraction the proper procedure, and believed himself incapable of doing it, he would have called assistance. The results obtained show his good judgment in the case, as both mother and child lived.

My experience in the treatment of placenta previa has been limited, but I have seen the work and the results in the clinics of some of the leading gynecologists where the version method is employed exclusively, and the mortality to the mother was much higher than if Cæsarean section had been the treatment used.

In our first case the woman was very much exsanguinated, and I am sure the results would have been different had a dilatation and version been done. By Cæsarean section we were able to control the hemorrhage and prevent shock with abdominal saline.

Holmes has in a recent article tabulated the cases of placenta previa treated by Cæsarean section. The case of Willard, Lanphear and Morris he excludes from the number as having been performed so early in pregnancy as to really come under the head of "hysterectomy for miscarriage."

Out of twenty-five cases reported by Holmes, and from which he deducts his statistics, five of the twenty-five women died. They

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were all desperate cases, and with the exception of Donoghue's case, which died from an ileus due to adhesions to the abdominal wound, the other four would, no doubt, have succumbed to any form of treatment, judging from the remarks regarding the cases. In Sligh's case the woman was supposed to have had a carcinoma of the cervix. In the case of Hypes and Hulbert, section was performed as a last resort. The case reported by Gillette, and which also died, was allowed to bleed for a month, and was, no doubt, "in extremis" before the operation was done. The case of Hare, which was similar to Gillette's, refused treatment for twenty-eight days, ended fatally after section. Two of the five fatal cases were central implantation, two were partial, and the variety of the fifth is not stated.

The maternal mortality was 20 per cent, which is not high, taking into consideration the seriousness of the cases and remembering that section was a last resort after various methods of treatment had been tried. There is no doubt in my mind that in cases of placenta previa, when the operation of Cæsarean section is done early, and before the woman is exhausted from hemorrhage and before temporizing measures of various kinds are resorted to, the per cent. of mortality can be cut down to as low a figure as ordinarly attends a simple laparotomy.

The infant mortality has been much decreased by section. The statistics in the cases reported are not accurate, for some of the children were not viable, and some were dead at the time the operation was done. In reckoning the infant mortality, only such cases should be included which succumb within a short time after birth or which die as a direct result of the treatment, and cases dying ten, fifteen or thirty days after delivery should not be counted.

Some of our leading gynecologists regard the operation of Cæsarean section for placenta previa unjustifiable. The main argument used is that by version and the bringing down of the leg or body of the child, the placenta will be sufficiently compressed to check the hemorrhage. By this method the mother is supposed to have a better chance, but the infant is almost invariably sacrificed. This to my mind is not only wrong from a moral standpoint, but from

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the standpoint of professional honor. It is the duty of the physician to give to each an equal right to life. We should not follow the advice of Schroeder when he says, "that those who would aim at the most happy results in the treatment of placenta previa take the least possible consideration of the child."

The argument has been advanced that a large per cent. of these children are premature, and die the first few days of life, and therefore it does not matter if they succumb while being extracted. To act upon such a principle in the practice of medicine is below the dignity of reputable physicians.

Again, whether we use the child's body, rubber bag, or tampon, often the compression is not sufficient to check the hemorrhage; the bleeding continues concealed within the uterine cavity. If there is inertia of the lower uterine segment, it will be almost impossible to control the bleeding by the vaginal route. Müller found adhesions of the placenta in 22.8 per cent of cases of placenta previa.

One must bear in mind the ease with which rupture of the uterus may occur in previa cases if forcible dilatation and version is attempted, owing to the pathologically dilated uterine segment and the exaggerated paralysis of the placental site. Strassman lost seven women, out of 231 cases of placenta previa, from lacerations of the cervix, produced entirely by too rapid extraction.

I wish to take issue with Holmes, who in a recent article in the Journal of the A. M. A. says: "The combination of imperfect retraction of the lower segment and placental adhesions would seriously compromise the technic of Cæsarean section, which, with the concomitant anemia, would directly jeopardize the life of the woman." It is just for the above conditions that Cæsarean section is indicated and not contraindicated. There is no better way of overcoming the lack of uterine contractility, placental adhesions, and preventing the increasing anemia than by Cæsarean section. We have the uterus in our hands, the vessels can be compressed by the fingers of an assistant or by forceps, and hot packs can be applied directly to the placental site; and then, if we find the hemorrhage is uncontrollable and the uterus does not contract, a Porro can be done. The conservative method of operation should always

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be the one chosen, unless the hemorrhage can not be controlled or there is infection present. I do not believe, as some advocate, in doing a Porro to prevent the possibility of an infection when it does not already exist.

We are all agreed that cases of placenta previa are very liable to infection, being, as is often the case, extremely anemic from previous hemorrhages. There is less likelihood of infection occuring when the case is taken early and a Cæsarean section done, than when temporizing measures are used and dilatation and version performed.

The operation of Cæsarean section is regarded by many as being a most hazardous procedure, while in fact it is not a difficult operation. Before the days of antiseptic surgery, Cæsarean section, like every major operation, was attended with a frightful mortality; but since surgical technic has advanced to its present state the mortality has decreased to a very low per cent. Zweifel has performed seventy-six Cæsarean sections with one death and Reynolds twenty-three with no deaths. The records of a number of other operators are equally as good.

The operation of vaginal Cæsarean section, described and used by Dührssen, should not be done in placenta previa owing to the great danger of hemorrhage from the placental site.

To recapitulate:

1. In placenta previa centralis, when the child is alive and viable, the procedure indicated is Cœsarean section.

2. The life of the unborn babe, when viable, is as much to be thought of as that of the mother.

3. The operation of Cæsarean section can be done more quickly than dilatation, version and extraction.

4. The danger of a ruptured uterus and uncontrollable hemorrhage can be better overcome by section.

5. An obstetrician should not attempt a version unless he is capable of doing a Cæsarean section.

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LIST OF FORTY-THREE CONSECUTIVE CASES OF TYPHOID FEVER TREATED BY THE SULPHATE OF COPPER PLAN.*

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Forty-one of the following cases occurred during the autumn of 1905 and two during the spring of 1906. Most of these cases were treated in St. Elizabeth Hospital, Lincoln, Neb. All of the cases presented the usual characteristic signs and symptoms of typhoid fever in greater or less degree. Excepting where there were two or more in a family each case was given the Widal test. In families where two or more cases occurred simultaneously one case was always thus tested and occasionally the rest.

Most of the cases could be traced to infected milk. The youngest was 7 months of age. The oldest 67 years. Nine were females, thirty-four were males. The highest temperature reached was 103 2-5°. The general average of temperature during the height of disease was 102.1+°. One case had phlegmasia alba dolens. One case was complicated with erythema multiforma. One individual had a rise of temperature for forty-two days. One for nine days. The majority had an elevation of temperature about twenty-two days. The general average elevation of temperature was twenty-three days. One patient had hemorrhage of the bowels. Six were delirious. One was violently delirious. Three had relapses. Of these, two were mild and one severe. All recovered but one and he was the twenty-first in the list. Forty-two are hearty and strong today. At least none of them are visibly suffering from the sequelæ of typhoid fever.

The treatment of these cases consisted in the systematic use of sulphate of copper. A case was at once placed upon two drops of a 6 per cent. solution of sulphate of copper in one-half glass of water every two hours, day and night. In case the stomach proved intolerant the dose was reduced to one drop in one-half glass of water every two hours. It occasionally happened that it was necessary to reduce the dose still more, making it only one-

*Read before the Nebraska State Medical Association, Lincoln, Neb., May 1 to 3, 1906.

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half drop once in two hours. Two drops of a 6 per cent. solution contain about ⅛ of a grain. In point of fact the majority of cases could take about one drop every two hours. Cases that were seen during the first two or three days of the onset of the disease received large colonic flushings of sulphate of copper solution once in three hours for two days. In these injections 5 grains to the quart were used. If this proved irritant, a less quantity would be used in subsequent flushings. If the tongue became dry, which it seldom did, the copper solution was moderately acidulated with sulphuric acid. If the breath became foul at any time during the progress of the disease, moderate quantities of baptisia were given in connection with the copper. Baptisia does not belong to our official list of remedies, but it is a great aid in correcting the conditions which produce a fetid breath in continued fevers.

The patients were of course immediately put to bed and were made to remain there until convalescent. The diet was uniformly buttermilk, a glass once in four hours. Between the buttermilk I sometimes permitted soups to be given, carefully prepared, skimmed and strained. Fruit juices were invariably given, following somewhat the desire of the patient as to which particular one. Tomato juice, a wineglassful every two hours or three, proved in the majority of cases to be very acceptable and certainly very beneficial. The two patients whose records I submit to you for examination took an average of probably twelve good sized wineglasses of tomato juice a day, each.

The temperature was reduced when necessary by general sponging and ice bags to the abdomen. It will be noticed that the patient consumed during the twenty-four hours a large amount of fluid. The nurses were directed to insist that the medicine be taken in at least one-half glass of water, and as much more as the patient desired. General nursing measures were instituted as individual cases demanded.

When the disease abated, temperature became normal, tongue cleared, patient became bright, with conditions generally pointing to the immediate nearness of convalescence, the copper was dropped and the patient given 1-240 of a grain of strychnine once in three

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or four hours. After the temperature had been normal about eight or ten days, the pulp of a baked apple, a little rice, tapioca, soft boiled eggs, junket, blanc-mange, etc., would be gradually introduced into the diet until perfectly normal conditions called for the food of health.

This entire list of cases was characterized by an evenness that was very gratifying. There was a recrudescence in but three cases. One from some circumstances of an exciting nature, plus semi-solid food on the seventeenth day. The second had a slight recrudescence from the consumption of about one-fourth of a bottle of bitters that was surreptitiously smuggled in by a friend. The third consumed an unknown quantity of food-stuff brought in by an erring but no doubt sincere neighbor just at the beginning of convalescence.

It was noticed that the pulse-rate was frequently subnormal during convalescence; a fact, I think, attributable to the action of the copper on the nervous system. Curtis (in Wood's Hand-Book) says, "In medicinal doses too small to produce any obvious derangement, the influence tends to the abatement of spasmodic nervous disorders but not to a sufficient degree to enable copper to compete with zinc." I have frequently noticed, in the treatment of typhoid fever with sulphocarbolate of zinc, a subnormal pulse. I have, however, never observed any serious results, although I must confess that in my early use of copper, as in my early use of zinc sulphocarbolate, I was not a little alarmed at the slow heart-beat.

The case that died had practically recovered from the typhoid fever and had been convalescent for two weeks prior to his death. This man, however, was saturated through and through with syphilis; so much so that enlarged glands were to be found everywhere. There were patches in the throat, sore shins and alopecia. This man was sufficiently luetic to have died on general principles, and unfortunately contracted typhoid fever just when he was at his worst.

I desire to call your attention in these cases to, first, the evenness of the course of the fever; second, the absence of complications; third, the average length of time before convalescence was estab-

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lished; and fourth, the shortening of the course of the disease when large colonic flushings were given *early*. In all cases thus early treated the disease moderated and in several instances seemed to have been almost aborted. I notice an absence of serious sequelæ. I notice, too, that the death-rate was practically nil, and had it not been for the syphilitic the recovery would have been 100 per cent. This is not more remarkable than a similar result under some other treatment, and such results have been obtained under other methods of management. Nevertheless it makes a good showing, and in itself leads me to conclude that copper deserves a very high rank in the treatment of typhoid fever.

In the study of copper two subjects at once command our attention: First, the toxicity to the human family of copper; and second, its real value as a destroyer of germ-life. The opinion so universally held that all copper is severely poisonous has been at least much modified by recent researches. Unquestionably it is entirely possible to have copper poisoning, but such cases are in the whole unusual. Medical men, like historians, have a habit of handing down unquestioned the mistakes of their predecessors. In point of fact, copper is present in almost all of our food. It is nearly as widely diffused as lead. It is found in bread, wine, condiments, pickles and vegetables, which last in fact possess the property of taking up the metal contained in the soil; and notable quantities of it are found in the hulls of various grains. The vegetarian particularly takes about one milligram of copper daily, and it is entirely possible that this explains why vegetarians are less liable to have typhoid fever than others.

Copper is notoriously liable to contamination with arsenic, and Witthaus (in "The Medical Student's Manual of Chemistry") declares that compounds of arsenic are the active poisonous agents in many cases of supposed copper-intoxications. Continuing from Witthaus: "Nor is it improbable that articles of food allowed to be exposed to air in copper vessels should undergo those peculiar changes which result in the formation of poisonous substances such as the sausage or cheese poison or the ptomains."

Cushing (in his treatise on Pharmacology and Therapeutics)

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says small quantities of copper may be taken for indefinite periods without any symptoms being introduced; so that, so far as man is concerned, the general action of copper is unknown.

Kraemer (in the American Journal of Pharmacy, December, 1904) gathers from many sources the opinion that small doses of copper are practically innocuous.

Holland, of Philadelphia, says metallic copper is not poison. When taken in the intestional tract copper is converted chiefly in the sulphide and is found in the feces. That which is absorbed is eliminated in part in the urine, but chiefly through the bile. From six to ten times as much copper passes out in the bile as in the urine (Ellenberger and Hofmeister). It would seem clear that copper in reasonable quantities for a reasonable time will not in any sense of the word jeopardize a patient.

Secondly, the action of copper as an antiseptic. The value of copper as an agent for the destruction of algæ suggested its probable value in the destruction of bacteria. Naegeli established the fact that a gold coin placed in a glass of water diffused sufficient colloidal copper to arrest the development of spiogyra. One part of copper per 1,000,000,000 suffices under favorable conditions to cause the plant to perish. A possible explanation of the potency of colloidal copper may lie in the fact of its perfect solution. Some of the algæ are destroyed by a solution of one part of sulphate of copper in twenty-five million parts of water. And the large majority of algæ are destroyed by not stronger than one to three millions. Dr. Albert F. Woods (in Bulletins Nos. 64 and 76 of the Bureau of Plant Industry, Washington) demonstrates that the typhoid fever germ under proper conditions succumbs to a dilution of from one to one hundred thousand to one to five hundred thousand He also discovered that colloidal solutions are immensely more potent than solutions of the salts of copper. The colloidal solution of copper is produced by the action of water upon metallic copper surfaces. Dr. Woods makes the following very interesting statement: "A comparison of the effect of copper sulphate with certain other substances commonly used as disinfectants is instructive, and gives some idea of the great toxicity of this metal. Mer-

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curic chloride (corrosive sublimate) is slightly more fatal to typhoid fever and cholera than copper sulphate, acting at a lower temperature in a shorter length of time. Carbolic acid, one hundred times as strong as the dilution found to be effective for copper sulphate and acting eight times as long, failed to kill. The same is true of formalin used between fifteen and twenty times the strength of a 1 to 100,000 solution. Using one thousand times the amount of citric acid that would be used of copper sulphate produces death. Thymol is effective in six hours when used in a solution of one to five thousand, and naphthalene is five times weaker."

It is a question whether it would be better to give metallic copper by the mouth in the place of sulphate of copper. Or possibly an improvement would be the use of colloidal solution prepared by the suspension of copper plates in water for some hours, the water to be drunk by the patient regularly.

In conclusion: Two facts stand prominently before us, namely, first, copper is one of the best known remedies in the treatment of typhoid fever; and second, copper is the very best known destroyer of typhoid fever germs in water and food-stuffs.

MEDICAL FEES IN COUNTRY PRACTICE.*

W. O. BRIDGES, M. D., OMAHA, NEB.

At no time in the history of this country has general prosperity among our people been on so high a plane. To whatever preponderating cause theorists may attribute this fact, it must be admitted by all that one of the chief of those advanced is the financial independence of the American farmer. To him we owe the origin of a large proportion of all wealth. From him we expect the purchase, utilization and consumption of products and manufactures applied in his supplemental sustenance and as a means toward the accomplishment of his work and the comforts of his home. Between him and the source of his purchased needs is that great army of so-called middlemen inhabiting the great cities, manufacturing centers and the country towns and villages, whose very life is largely,

*Read before the Nebraska State Medical Association, Lincoln, Neb., May 1 to 3, 1906.

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if not completely, dependent upon the tiller of the soil. When the American farmer is prosperous, prosperity is general. In time of drouth the manufacturer, the merchant and the coupon-cutter experience adversity. Cities, destroyed completely by nature's freaks and fires, rise again in the night, grander, loftier, and more attractive than ever. Destruction of the tillable soil, by whatever cause, means devastation, poverty and distress, possibly for all time. There is no prosperity so continuous, so substantial and so elevating to mankind as that whose foundation is laid by the man who, profiting by his knowledge of natural laws, digs out of the ground that which goes to support his fellow man. To this account more than any other may be laid the wonderful accomplishment of this republic in a trifle over one hundred years, occupying today probably the foremost position among the nations of the earth. The prosperity of the farmer affects directly the middlemen in his nearby town. When he has plenty to sell at good prices, the banker, preacher, storekeeper, druggist, carpenter, painter and saloon man are kept busy in his wake. The result is more work, better returns and a general advance in the material development of the town.

These thoughts, with the knowledge which has come to me of the fees charged by physicians in country practice, have led to the query: Does the country doctor participate in the benefits which accrue to his fellow townsmen, because of the material advancement of the farmer, in like degree? In other words, has his income from his practice kept pace with the times? Is he receiving the remuneration commensurate with the increased cost of his education, with the advance in the price of his necessities, the hard work and responsibilities of his calling?

In a somewhat extended association with the physicians of Nebraska and western Iowa, I have come to learn something of the details of their work, the trials of their life and their compensation for service. Two facts ascertained have impressed me: one, the uniformity of their fees, and the other, the low prices charged. For instance, inquiries of men practicing in Iowa, north, east, central and southern Nebraska, in towns of 1,500 or less, showed up

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a schedule about as follows: Day visit in town $1; office consultation and prescription 50c; visits in the country, mileage, one way only, 50c, and in some instances (a minority) $1 in addition for the call; obstetric attendance, $10 in the country—and a few reported mileage, 50c in addition. Instrumental deliveries were not charged extra by many, and those who did made a fee of $5 in addition. An extra charge for night work of any kind was a rarity, and the fees were not affected by storm, deep mud, or other influences occasioning delay and undue exposure. Individual reports, particularly of obstetric experiences, were interesting, and some of which indicated a disposition to charge less than the schedule. I will recite one in point. Dr. T. was called four miles from town to assist Dr. B., who had been with a primipara twelve hours. Forceps had been applied at the inferior strait without result after prolonged effort. After examination and consultation Dr. B. gave an anesthetic, Dr. T. applied the forceps and an hour later delivered the child with a considerable perineal tear, which was repaired. Two weeks later Dr. B. asked Dr. T. what his fee was. He replied, "Oh, $15." Dr. B. rejoined, "That seems pretty steep, as I cannot send them a bill for more than $20 for both our services, and I had to catheterize her for three days after delivery." Dr. T. replied, "Then make it $10." The patient's family was in comfortable circumstances.

Several weeks ago, desiring to ascertain how the fees charged in this section of the country compared with those elsewhere, I wrote a number of letters to physicians in small towns in various parts of the country and received answers from North Carolina, Texas, Wisconsin, Arkansas, North Dakota, California and Utah. In all except two, Wisconsin and North Carolina, town visits were charged at $2 or above (California $2.50); office consultations $1 or above (California $1.50). Three reported visits in the country at $1, mileage one way without extra charge for visit; one the same with $2 extra for visit, and three 50c mileage and $1 extra for visit. Consultation visits were $10 in four reports, $5 to $10 in one and $5 in two. Obstetric attendance was reported at $25 in one (California), $25 in town and $30 out in one (Utah),

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$15 in one (North Dakota), $10 and mileage in one (Wisconsin), and $10 in three. Forceps delivery, additional charged in one $25 (Texas), $10 to $25 in one (Utah), $10 to $15 in one (California), $15 in one (North Dakota) and $5 in three. For night visits three reported double day charge, two one-half more and two no extra charge. While there is not complete uniformity in the answers to my queries, it is very evident that in all save two (Wisconsin and North Dakota) the fees charged for like services are much higher than they are here—and yet it must be assumed that Iowa and Nebraska are as prosperous today as any section of the country.

Looking over the subject of physicians' fees in the past twenty-five years, one is impressed with the fact that the charges made by doctors in country practice have not advanced one cent, whereas the classes of people whom he serves have doubled, trebled and even quadrupled their incomes. Twenty-five years ago the outlay for his medical education, in time required and money expended, was less than one-half the present cost, and in consequence thereof the value of service which he gives today as compared with the former period cannot even be measured in dollars and cents. The charge of fifty cents for an office prescription may be all the prescription is worth many times, for if it is the prescription which the fee is made for, the patient is not getting more than his money's worth. Too often is this impression given to a patient, or too seldom is he led to understand that the prescription is only an end result of an examination which requires technical knowledge and experienced judgment. A fifty-cent fee is too apt to mean a fifty-cent service. This is no reflection on the doctor whatever, for human nature is the same everywhere, and so long as it is the custom for our service to be measured in money value, the reverse in most instances will apply—the value in money determines the service. To state an opposite hypothesis may make this statement seem less critical. Suppose the fee charged for office consultation was arbitrarily fixed at $5, is there a single physician in this state who would be content to simply ask a few questions, look at the tongue, determine the absence of fever by the hand contact, turn around and write a prescription? What applies to a fifty-cent office fee applies

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also to a dollar visit in town, a mileage of fifty cents without visit fee in the country and a twenty-four- to forty-eight-hour obstetric fee of ten dollars. The low fee proposition has two principal bad results for the doctor. By the undervaluation of his own service, the confidence in himself in time suffers, his work becomes superficial and he ceases to develop—and failing to earn a competency during the active years of his professional life, he too frequently goes into his old age without the necessities of life or is dependent upon relatives for support. On the other hand, fees proportionate to good service mean much to the doctor. The stimulus to be thorough and painstaking, to think and study over his cases, to relieve him of necessity of outside financial interests, mean much for his professional advancement; for the increased revenue and his inclination lead him to seek the change and advantages offered by the post-graduate school and by the hospitals of nearby cities. He also feels freer to afford the time and pleasure of the county, state and national society more frequently.

There is no community which would not be greatly benefited by an increased income to all the members of the profession in their midst. Suppose, for example, each physician in a town having six physicians should devote three to six months every six years in post-graduate hospital work, what effect would this have on the value of his service, and who else would profit by it? Does a physician ever go to a county, state or other medical society meeting without receiving some new suggestion or having awakened some new thought? If he goes to Chicago, or New York, or Philadelphia, or Baltimore for a month in contact with other medical men, does he not return with renewed determination to get out of a rut and stay out? If he can figure that his professional income will admit of his doing this, and that by the doing he will gain vantage ground, and by the very move still further increase his income, is he not standing in his own light not to do it? Farther than this, does not his duty to his patrons and his influence in the community require him to do it? And if so, should they not pay for it in fees which will permit of a little more than a comfortable living?

When I have talked with some of my professional friends about

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this subject, the reply has been: "The fees in our community have been fixed so long that our patrons would rebel at any increase, and furthermore there would be lack of uniformity in competing towns and we might sacrifice our business." To the first objection, I would offer a protest. From what I have written above as to the character of the service, it is assumed that the farmer or the tradesman is willing to pay for what he buys. If he is made to see that what he buys is worth the money, he pays. That he is not averse to doing so can be demonstrated time and time again, when he is seen to pay railroad fare in addition to a good-sized consultation fee to some city doctor, who may be no better or perhaps not as good as his own physician. The increase and prestige of men aiming somewhat at specialization in small towns is an indication that good fees may be asked and collected without hesitation.

Recently I saw a patient with her physician four miles from a town of 400 in the central part of the state. In eliciting the history, it was ascertained that six months ago the previous doctor's first introduction to the family had resulted in a diagnosis of a large ovarian tumor. He advised her removal to a city hospital for an operation. Following part of his advice she went to the next town, where the tumor was removed by a local surgeon, who charged and collected $300 and $20 a week for a room and nursing. Let any one tell me that farmers will not pay the price, when this same work could have been done in Omaha for $50, and in Lincoln for probably $75.

The frequency with which farmers and people from small towns go to nearby cities for minor medical and surgical consultation, ignoring often the local physicians, is to my mind the surest indication that they want to pay more, for, as a disinterested spectator, I have often seen them go to men inferior in every way, excepting in the fee. A young physician, recently located in a fine Nebraska town, complained to me that the outlook was poor, for nearly all the best people there went to the city twenty miles away for their doctoring. I advised him of his great opportunity; for if he had the incentive to charge enough and an aim to earn his fee, with his

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qualifications, which I well knew, he could turn the tide in his own favor.

Would any reasonable man object to paying the doctor more for night than day work if he asked? He has to pay the carpenter, the painter, the plumber who do overtime work at an increased rate, and why should he kick on the doctor? I have been surprised at the number of men who informed me that they did not discriminate between the fees for day and night work. A busy man at this rate burns the candle at both ends and quits at an earlier age without much to show for it. When one considers the number of necessary calls to which the physician is subject during his sleeping hours, he must feel that, with no difference in cost to the patron. it is a matter of slight concern whether he waits till night. An increase in the fee for this work would anticipate or postpone a sufficient number of calls to save the doctor much valuable time for his natural rest and keep him busier in the daytime. For the absolutely necessary work it would be a small man who would refuse double fee.

The question of custom and competition is advanced as a theory for low fees. How easy this can be corrected is exemplified by the statement of a physician from the southern part of the state to me only a few days ago. The subject of a fee schedule came up at the meeting of this county society for discussion, and an advance all along the line was agreed upon. There were six towns in the county and between them a splendid large farming community. The new schedule was published in every newspaper in this county only, signed by the members. He said there was some kicking for a while, but the new rates were soon accepted and had been in full force for some time.

Organization, then, must be the solution of the question. The county and district societies should do as much for the doctor in this regard as they do in every other, and I am not so sure but that a move in this direction by the state society for a schedule which would be adopted by all its component parts would be in the right direction. It would do away with variations in schedules applicable to border towns and be much easier lived up to. I believe the

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competition element, so far as fees are concerned, in the selection of a physician is much overestimated. In time of drouth and depression, with poor crops and burdened farms, it might prevail, but certainly the drift, at the present time of progress and prosperity, is toward getting results even if it does cost. Granting that non-members of societies or a few backsliders would keep up the old custom, this should not deter those who believe "a workman is worthy of his hire," and by their very assumption attract those who believe with them. It was said of an old physician of my acquaintance that he had a large following not because he knew more than any of his colleagues, for he really knew less than many of them, but because he charged large fees. If this kind of a bluff works, how much more effectual it must be if it is backed up by sincere effort, painstaking care, and a disposition to be worth the price.

My aim in bringing this subject up in this form is to unload a growing impression on my mind that the doctor in country practice in Nebraska is underpaid, and that he himself is mostly to blame for it; that his schedule of fees has not advanced with the requirements of his education, of his needs and of his position; and that by means of a well directed effort, individually and collectively, there is no reason why results should not be accomplished which would inure not only to his advantage, but would react favorably upon his constituency.

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Abstracts.

Operative Treatment of Fractures.—We are in receipt of a monograph written by Arbuthnot Lane, of London, entitled Operative Treatment of Fractures, and containing 144 pages with 103 illustrations. It discusses quite at length the problem of operations or open treatment in fractures and dislocations. In closing his article he lays down the following rules with respect to operative procedures on bones:

"1. The operative treatment of simple fractures is comparatively easy, in a majority of cases, and if due care be taken and reasonable skill be exercised, the risk is practically nil.

"2. Age is no barrier to operations. Indeed, in old people bones often recover operative treatment more rapidly than in young.

"3. Blunt dissecting instruments, such as Kocher's dissecter, or the handle of a knife, should not be used in dissecting out bone; instead, use sharp instruments for tissue, and a periosteotome.

"4. No germicide or other fluid should be introduced into the wound.

"5. Great care should be exercised in cleaning the skin. On the knee and the ball of the foot it is sometimes necessary to remove the entire epidermis by scraping it before the operation begins. This would take several days to prepare the patient, under these conditions. The incision should be made at a point involving the minimum danger to important structures and the maximum advantage from the standpoint of accessibility.

"6. All fragments and clots and intervening tissues must be removed, and the bones brought into exact apposition.

"7. Absolute stopping of bleeding is necessary before sewing up the cavity.

"8. Generally speaking, the screw is the most efficient and most powerful means by which the fragments can be retained immovably on one another. The screw used must be very much larger than the drill.

"9. If much oozing is expected, drainage may be used for one or two days, to advantage.

"10. Some form of splint is usually required, after the operation, when the fracture is in a long bone, or in any position where it may be moved."—STOKES.

Iodin in Surgery.—(Practical Medicine Series, 1906, vol. II.)—Iodin in surgery, with special reference to its use as an antiseptic, is considered by N. Senn. After tracing the history of its use, he points out that the therapeutic value as a local remedy depends on two distinct properties of the drug: (1) It is a powerful tissue stimulant; (2) it is one of the most potent, least harmful, and most reliable of the known antiseptics. A combination

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of these two actions renders it an invaluable agent both in aseptic and antiseptic surgery.

In all aseptic operations in which Senn does not wear rubber gloves, he brushes the subungual spaces and nail-folds with tincture of iodin as the last step in the process of hand disinfection. He has thus limited the wearing of gloves to abdominal operations, hernia, and operations on non-suppurating, non-tuberculous affections of the joints. He is satisfied of the great value of finger-tip disinfection with tincture of iodin when gloves are not used, and believes the time is near when a 1 per cent. aqueous iodin solution will replace the antiseptics now generally relied upon in hand disinfection. Iodin in proper dilution to serve its purposes as an antiseptic does not damage the tissues; on the contrary, it acts the part of a useful tissue stimulant, producing an active phagocytosis, a process so desirable in the treatment of acute and chronic inflammatory affections. In simple hyperplastic goiter, actinomycosis and blastomycosis, its local use is made more effective by cataphoresis.

Acting on Senn's suggestions, G. C. Kinnaman investigated the bactericidal action of iodin, and presents the results of his work in an exhaustive paper, which is summed up as follows:

1. In a solution of iodin, varying from an 0.2 per cent. to a 1 per cent., we have a very potent germicidal agent.

2. Its germicidal power is far superior to that of bichlorid, the acknowledged leader of all other antiseptics. This fact was shown by experiments made with a 1-1000 solution of bichlorid on S. pyogenes, using the same method employed with iodin solution. It was found that an exposure of fifteen minutes, although showing considerable inhibitory power, especially on the first day, permitted a good growth of streptococci to appear. An exposure of thirty minutes gave no growth. The superiority of iodin is evidenced by the fact that a comparatively weak solution, i. e., 0.2 per cent., gave death after two minutes' exposure.

3. It approaches nearly to the ideal antiseptic in that: (*a*) It is easily prepared and stable. (*b*) Is non-toxic and non-irritating in strengths effective, being only one-fourth as toxic as bichlorid. (*c*) Does not coagulate albumin or form inert compounds with tissues. (*d*) Is effective in a very brief time. (*e*) The strain it produces soon disappears. (*f*) Possesses a remarkable penetrating power.

4. An 0.5 per cent. solution is amply strong enough for all practical usage. —STOKES.

The Action of Ergot Upon the Stomach and Intestines.—(S. J. Meltzer and John Auer, from the Rockefeller Institute for Medical Research, American Journal of Physiology, vol. XVII, No. 2.)—The action of ergot upon the uterus has been the subject of research by many investigators, but effects upon the stomach and intestines have been in the past merely incidental observations and not specially planned research.

The work of Meltzer and Auer was carried on for the definite purpose of

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demonstrating what action, if any, ergot had on the alimentary canal. The animals used were dogs, cats and rabbits under morphine and ether anesthesia. They incidentally observed that ergot in 4 or 5 gm. doses acted as an anesthetic in dogs but not with the other animals used.

The gastric and intestinal movements were observed (1) by opening the abdomen and keeping the viscera moist with warm normal saline and keeping the temperature constant by means of an electric lamp kept at a suitable distance over the animal; (2) by first cutting through the skin only over the abdomen, dissecting it back a little distance and forming therewith a receptacle for warm normal saline in which the viscera were immersed when the abdomen was opened later on; (3) by removing only the abdominal skin in young animals, when many movements could be seen and felt through the intact musclature; these observations being facilitated by destruction of the dorsal and lumbar cord, which caused paralysis and relaxation of the abdominal muscles.

The ergot preparation used was the fluid extract and it was usually introduced directly into a vein. The results obtained apparently demonstrated the following facts:

1. Ergot increases the force and frequency of the spontaneous movements of the stomach and intestines.

2. Ergot augments the motor effects of vagus stimulation upon the alimentary canal.

3. Moderate doses increase the frequency and energy of normal intestinal movements, larger doses tend to produce more tetanic and less rhythmic muscular contractions.

4. Very large doses reduce the motor effects of vagus stimulation and in a few cases stimulation of this nerve after ergot produced relaxation of the gut rather than contraction.

5. Atropine impaired the effects of vagus stimulation upon the intestine and frequently abolished it entirely upon the stomach both before and after administering ergot. This shows that ergot acts upon the nervous rather than the muscular elements of the gut.

These results correspond with the action of ergot upon the uterus, where we find that small doses merely increase rhythmic contractions already present but will not initiate them. Larger doses tend to tetanic contractions, while very large amounts will frequently produce relaxation and cessation of all movements. The therapeutic inferences are quite obvious.

Prostatic Albumin and Albumose.—Edgar G. Ballenger, writing in American Journal of Urology for October, calls our attention to the presence of albumin or albumose in urine due to prostatic secretion. After discussing the subject somewhat at length he makes the following conclusions, viz.:

1. The presence of albumin or albumose in the urine voided after pros-

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tatic massage, when that passed before is normal, is as reliable in a diagnosis of prostatitis, or an abscess draining into the urethra, as renal albumin is in diagnosis of kidney diseases. This was constantly found with twenty-five patients with inflamed prostates. In two of those with acute prostatitis the first urine for a few days showed as much as 1 per cent of proteid without evidence of renal disease at any time. The test was negative with fifteen patients with healthy prostates and vesicles.

2. The recognition of this prostatic and vesicular proteid affords a very simple method of making a positive diagnosis of prostatitis and seminal vesiculitis (when in excess) and is available in mild cases whether a microscope be at hand or not.

3. An overflow of the secretion from the prostate or vesicles may contaminate the urine and mislead one as to the significance of the proteid present. In doubtful cases it should be eliminated by obtaining urine for examination ten or fifteen minutes after massage of the prostate and vesicles and a thorough irrigation of the urethra and the bladder; or, if this fails, by the history, the absence of symptoms of nephritis and casts, and, if necessary, by ureteral catheterization. An increase in the amount of the proteid after massage should always suggest the prostate or the vesicles as the source.

4. Owing to the alkalinity of the prostatic secretion and to the fact that a large part of the proteid is deutero-albumose, which is not precipitated by boiling, the heat test as ordinarily applied will not be satisfactory, as many times no cloudiness will appear in the part of the urine boiled. Picric or citric acid will, however, produce a cloudiness or a precipitate when the urine is cool. This will disappear when heated if due to albumose. If the urine be added drop by drop to a test tube of boiling water the proteid can be readily detected by the little clouds formed as it mixes with the water.

5. Roberts' solution, as modified by Boston, containing one part of nitric acid to ten parts of a saturated solution of magnesium sulphate, applied as a layer test, will demonstrate still smaller quantities and is the method upon which I rely in routine examinations.

6. A study of these secretions has led me to the conclusion that spermatorrhea, instead of being a neurosis or due to a patulousness of the seminal ducts, as most authorities claim, is really caused by a low-grade inflammation of the seminal vesicles and the ampullations of the vas deferens, which should be borne in mind in the treatment of the conditions. The inflammation causes an increase in the secretion which mechanically washes out the spermatozoa.—STOKES.

Review of Dermatology and Genito-Urinary Diseases.—Herman Klotz: A Plea for the Use of Soluble Preparations of Mercury in the Treatment of Syphilis by Mouth. (Journal of Cut. Dis., vol. XXIII, No. 279.)—The writer pleads for a preference of solutions of bichloride of

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mercury in the internal treatment of syphilis instead of the protoiodide pills. The latter often produce gastric and intestinal disturbances, stomatitis, and cutaneous eruptions. He prescribes the sublimate in solution, in doses of three teaspoonfuls daily, each containing 1-8 to 1-5 of a grain. To make the treatment as little cumbersome as possible, the patient is given a small, flat bottle, containing three ounces, sufficient for a week's use. Gastrointestinal troubles he has not observed; stomatitis did not occur, for the reason that solutions of bichloride of mercury of a strength of 1:1000-2000 are our best remedy for it. The effects are prompt and especially valuable in preventing relapses.

H. W. Stelwagon: Additional Observations on the Use of the X-Rays in Dermatology. (Journ. of Cut. Dis., vol. XXIV, No. 3.)—Stelwagon believes that in the great majority of cases no improvement will appear until a reaction has been provoked, though, with the exception of epitheliomata, it should not go beyond the slightest erythema. The first exposures should not exceed three minutes. In advanced stages of epithelioma the radiotherapy should be limited to from five to ten exposures, subsequently to excision or thermocautery. In lupus vulgaris the results are excellent. Only the most obstinate and extensive cases of acne should be reserved for this treatment and the utmost care should be observed. The same restrictions apply to eczema and psoriasis. Concluding, Stelwagon considers the X-ray a valuable addition to our therapeutic resources, but thinks that its application should be extremely cautious in non-malignant dermatoses; in malignant diseases it may be applied more boldly, but even here it may often be more advantageously employed supplementing rather than supplanting surgical measures.

J. N. Hyde: The Influence of Light Hunger in the Production of Psoriasis. (British Medical Journal, October 6, 1906, Section of Dermatology.)—It is suggested that partial or complete exclusion of light may be the cause of psoriasis. The following facts seem to prove this theory: lower animals are never affected by this disease, because always exposed to light; psoriasis is more prevalent in winter and in such countries where sunlight is at its minimum; the eruption is mostly localized on covered parts of the body. Hyde has seen good results, in the last twenty years, from exposure of these patients to sunlight.

Georges Thibierges: Spirocheta Pallida as the Cause of Syphilis. (La Syphilis, vol. IV, No. 5.)—To prove that a microorganism is positively the cause of a disease, several conditions must be fulfilled: (1) It must be found in all manifestations of this disease; (2) it should be found in this disease alone; (3) it must be possible to grow pure cultures of it; (4) it must be inoculable and produce the identical disease in a healthy individual. How does the spirocheta pallida behave in this direction? The first and second requirements are conformed with: the organisms have been found in every secondary and occasionally in tertiary manifestations, the latter being considered by many as not contagious; furthermore they were not observed in

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any other disease outside of syphilis. It is not possible, so far, to grow pure cultures, and inoculation has therefore been out of the question; notwithstanding this, the writer firmly believes in the spirocheta as the real etiological cause of syphilis, and is certain that the missing links in the above mentioned chain will soon be found, and remove the last existing doubts.—SCHALEK, Omaha.

Primary Carcinoma of the Ureters.—(The American Journal of Urology, October, 1906.)—In April, 1905, a case came under observation at the surgical clinic of Greifswald, which is of great clinical interest on account of the peculiarity of the symptoms presented, as well as the pathologic findings. A female, 60 years of age, gave the following history: At about the age of 5 or 6 she had scarlet fever and measles. Married at 17, she did not become pregnant. Her husband died five years after marriage from pneumonia. At the age of 27 years she married for the second time, going through two normal pregnancies, but after the first pregnancy she suffered from jaundice for about five or six years. During this time, in the summer months, she frequently complained of abdominal pain after hard work, but this, however, soon passed off and she did not feel ill in any other way. Since last summer she has again complained of constant pain in the abdomen. At the end of November, 1904, she fell, striking on the right side, since which time she has had constant pain, located in the back and extending towards the right side. At the end of March, 1905, her physician diagnosticated a right-sided nephroptosis; at the same time a tumor appeared in the right side of the abdomen, and as the latter increased in size and the pains increased, the patient came to the clinic.

She was a middle-sized, strongly built woman, with well developed muscles and considerable fat. The circumference of the abdomen was 99 cm., the abdomen being much distended, the right half protruding more than the left. On the right side of the abdomen resistance was felt by palpation, and by careful examination a tumor the size of a child's head was discovered, having an irregular surface. It occupied almost the entire right side of the abdomen from the costal border to the anterior superior iliac spine, causing some protrusion of the inguinal region. It extended somewhat towards the liver, did not move with respiration, and did not continue into the small pelvis by a pedicle. Some amount of tenderness on pressure could be elicited in the upper part of the tumor under the right costal margin and the growth appeared to be slightly movable. On the left side of the abdomen, between the umbilicus and the iliac spine, some tenderness was produced on deep palpation and here a sensation of varying resistance could be made out.

The kidneys could not be palpated, as they were in their normal position and the abdominal wall was very thick.

Examination of the urine gave the following data: It was passed spontaneously in small quantities, being cloudy and slightly acid in reaction. Upon filtration it was found to contain albumin, but no sugar. By centrifugation a

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good amount of flaky sediment was obtained, which contained numerous granular casts, flat epithelial cells, representing those coming from the vesical mucosa, and also a few red and white corpuscles.

Cystoscopy gave the following results. The bladder was small, being only able to contain a little quantity of urine, hardly amounting to 100 cc., and could only hold the irrigation fluid for a short time. The vesical mucosa was pale and the region of the ureters protruded. The left ureteral orifice projected markedly and from this urine occasionally bubbled out, which did not seem to be cloudy. In place of the right ureteral orifice a conical shaped growth, almost as large as a cherry, and having a smooth surface, was seen, and here no ureteral orifice could be distinguished. The tumor was evidently greatly prolapsed and produced an edematous ureteral mucosa. The mucous membrane of the bladder in the neighborhood was also swollen and edematous. At no point, however, was there any marked vascular injection. The right ureter could not be catheterized, but the left could, the instrument being pushed 25 cm. upward to the pelvis of the kidney. In three-quarters of an hour 28 cc. of slightly cloudy, dark yellow urine was obtained and during all this time not a single drop came from the right ureter. No calculous formation could be found in the protrusion of the right ureter.

Autopsy.—Medium size, strongly built, fat cadaver, of an elderly woman, abdomen somewhat pendulous; a large and perfectly fresh operative wound extending in the right lumbar region along the border of the ribs. Abdominal cavity opened. The omentum, possessing much fat, dips down in the pelvis. Its surface, as well as that of the intestinal coils lying underneath the parietal peritoneum, is covered with a thin layer of fluid blood, several cubic centimeters of which had collected on the surface of the pelvic organs. The right, underneath the liver, as well as on the mesocolon of the ascending colon, is covered by gauze filling up the abdominal space. The lower portion of the small gut was first separated from the ascending colon and cecum so that the large operative cavity was exposed. This was bounded above by the lower border of the right lobe of the liver; extending along the spine it passed near the inferior vena cava, while below it reached the entrance of the pelvis. It was perfectly dry everywhere, containing neither blood nor pus, while no reaction in the tissues could be found.

The left ureter was then exposed, to the extent of 5 or 6 centimeters and was found normal in color and nowhere dilated. The left kidney and suprarenal capsule were in normal position. The left kidney was of medium size, measuring 13 cm. in length, 5 cm. in width and 3 1-3 cm. in thickness, so that it did not appear as if it alone performed the functions of both organs for any length of time. Its capsule was easily stripped and its surface was then found to be pale red, containing a surprisingly small amount of blood, but nowhere could any cloudiness be detected. The medullary substance was also light red and transparent, while the straight urinary tubules showed themselves in the form of distinct, delicate light grayish red stripes, reaching the points of the papillæ. Fresh microscopic section showed a transparent

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condition of the convoluted urinary canals, while in the straight urinary tubules of the medullary substance were many casts and much blood pigment in the epithelium. The calices and renal pelvis were lined with a white mucous membrane.

The right kidney was absent, as well as a large portion of the upper part of the ureter. In order to examine the remainder of the tube, the bladder was opened in the median line, giving exit to some clear, colorless urine. The vesical mucous membrane was very white and only in the region of the urethral orifice was there some slight vascular injection. The orifice of the left ureter appeared as a small opening on a level with the bladder wall, whereas on the right a projection was seen, the size of a small hazel-nut, very soft in consistency and through the center of which a fine probe could be passed into the right ureter, the latter containing from ten to twelve cc. of urine, which made its exit when the instrument was pushed through the stump in the operative wound.

The soft medullary growth showed upon fresh microscopic sections an epithelium containing large oval nuclei and distinct nucleoli and represented large flat laminated epithelium, rich in protoplasm, and often supplied with pointed cell processes, among which transitional forms of cylinder cells could be distinguished.

On attempting to reach the bladder from above, through the ureter, firm occlusions were met with which at first appeared to be of a calculous nature, but upon section they were found to be thickened portions of the walls of the ureter in the form of small projections the size of a pea, around which existed a thick layer of cicatricial tissue. Extending about four or five cm. upward from the bladder the same milk-white neoplastic masses were found over the inner surface of the ureter, similar to the soft nodule appearing at the ureteral orifice and penetrating into cavity of the bladder. At a point about 12 cm. from the bladder, and where a calculus had been suspected to exist, a thick, hard substance similar in structure to a scirrhus could be traced up from the ureter into the fatty tissue. The microscope determined it to be a carcinoma.—STOKES.

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Necrology.

HARVEY LINK was born February 4, 1824, in Greenville, Tenn. He graduated in medicine from Louisville Medical College in 1850, and was married to Miss Mary E. Lloyd in 1855. He moved to Millard, Neb., in 1856, where he resided continuously to the date of his death, Tuesday morning, September 11, 1906. He was president of the Nebraska State Medical Society for the year 1879-'80.

Your committee offers the following resolution:

OMAHA, NEB., Nov. 12, 1906.

Whereas, After practicing the profession of medicine continuously in Douglas county, Nebraska, for fifty years, Dr. Harvey Link has been removed from us by death: Therefore,

Resolved, That we greatly miss our old companion, who was always genial in disposition, strictly ethical in deportment, and conscientious in the performance of professional duties.

Resolved, That we extend to his family our condolence and sympathy.

Resolved, That the secretary of the Omaha-Douglas County Medical Society be instructed to publish this report in the WESTERN MEDICAL REVIEW.

JOHN E. SUMMERS, JR.,
D. C. BRYANT,
R. C. MOORE, Chairman.

Society Proceedings.

THE Richardson County (Neb.) Medical Society met in regular session in Falls City, October 16, at 4:30 p. m. A goodly number were in attendance and some very interesting papers were read and discussed. In the evening the physicians present partook of a bountiful banquet at the National hotel, which all apparently enjoyed fully.

THE semiannual meeting of the Dixon County (Neb.) Medical Society was held in Ponca on Monday, October 8. The entire membership of the county was present and in addition a number of physicians from Sioux City, Ia. The papers presented were good, practical and to the point. The next meeting will be held in Emerson, Neb., in March, 1907.

THE Medical Association of Burt, Dodge and Cuming Counties met in West Point, Neb., on Wednesday, October 31. A large number of physicians were in attendance and a splendid programme was rendered. In the evening Dr. McDonald, of Fremont, delivered an address on "The Relation of the Doctor to the Laity," and Dr. J. S. Foote, of Omaha, followed with an address on "Our Common Origin."

THE third quarterly meeting of the Saunders County (Neb.) Medical

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Society was held in Wahoo on the evening of Thursday, October 11, and was a thoroughly successful one. Resolutions of sympathy with Dr. Thornholm in his recent bereavement were passed. A resolution was also adopted expressing the thanks of the society to Congressman Hinshaw and Hon. A. Laverty for their efforts on behalf of medical legislation.

THE Omaha-Douglas County Medical Society met in regular session at the Commercial Club rooms in Omaha on the evening of Tuesday, October 23, 1906.

Drs. von Mansfelde, of Ashland, and Orr, of Lincoln, visiting physicians, were accorded the privileges of the floor. Dr. von Mansfelde spoke on the subject of medical legislation and produced many interesting facts concerning legislative control of medical affairs, chiefly of a national character.

Dr. Lemere, of Omaha, read a large number of replies received from legislative aspirants in response to inquiries made concerning their attitude on medical legislation. He was instructed to interview personally the Douglas county candidates and make a list of those favorable to the principles of the McMullen bill and send a copy of this list to each member of the Omaha-Douglas County Medical Society before election day, November 6.

Dr. Palmer Findlay presented a number of gynecological and obstetrical specimens and drew many clinical deductions from the pathological conditions shown.

Dr. Lord reported six cases of fracture of the femoral neck, with an average of less than one-third inch shortening, little or no eversion deformity, and an inappreciable limp. The fractures were reduced under an anesthetic, and secured by his special plaster dressing, the distinguishing feature of which was a post-trochanteric spring-board splint, incorporated in such a manner as to exert continuous pressure to maintain the fragments in apposition. Buck's extension was maintained throughout. Dr. Lord's conclusions were: "The treatment of the fractures of the femoral neck by an open operation is contraindicated in too large a number to become popular. Age, prejudice and lack of facilities preclude the majority. Any dressing which does not absolutely fix and retain the fragments, and requires more or less constant watchfulness and supervision, will not meet the requirements. We should aim to meet the indications in fracture of the hip as we do in other fractures which we expect to treat successfully, that is, correct the deformity, and maintain apposition by an efficient dressing, until bony union is complete."

THE Omaha-Douglas County Medical Society met in regular session at the Commercial Club rooms in Omaha on the evening of Monday, November 12, 1906.

Dr. M. J. Ford presented a case of duodenal ulcer which he afterwards referred to in his paper on that subject.

Dr. B. B. Davis presented a specimen from a seven-year-old boy whom he had operated on for suspected appendicitis and found, on opening the

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abdomen, a patent Meckel's diverticulum which had become infected and inflamed.

Dr. Davis reported also a case of gunshot wound of the calf of the leg in a young man, which rapidly developed symptoms of gangrene, and in spite of early amputation resulted fatally. Bacteriological examination revealed the presence of the bacillus of malignant edema.

Dr. E. De Lanney presented a paper on Liver Ptosis with a report of two cases. He stated in brief that the condition, though rare, is capable of diagnosis; that it occurs almost exclusively in women and that the treatment is purely surgical if we consider rest as a surgical procedure. The operative treatment aimed at replacing the organ and attempting to retain it near a normal position by causing adhesions between the dome of the liver and the diaphragm and between its border and the abdominal parietes. The two cases reported, which were both in women, made good recoveries. He emphasized the importance of prolonged rest in the recumbent position, at first even in the Trendelenburg position.

Dr. M. J. Ford read a paper on Ulceration of the Duodenum with report of a case. He stated in brief that a duodenal ulcer occurs four times as frequently in men as in women, and that the treatment is both medical and surgical, the latter being usually the more satisfactory. The case reported by him had a perforation before operation and he first merely repaired the ruptured gut and later on performed a gastro-enterostomy anticipating cicatricial narrowing of the pylorus and duodenum.

The secretary read a letter, accompanied by resolutions from the Kentucky State Medical Association, asking for cooperation to prevent lowering of the standard and fees for life insurance examinations. It was moved and adopted that a committee of three be appointed to consider the Kentucky resolution and report next meeting.

Dr. J. P. Lord, chairman of the committee on medical publication, reported the purchase of the WESTERN MEDICAL REVIEW by a number of physicians who hold it in trust for the medical profession, and have no intention of conducting it as a private enterprise. He also reported the outline of a plan by which the Porter-Ryerson-Hoobler Co. are willing to undertake the business management of the REVIEW, and asked that this matter be made a special subject for discussion at the next meeting.

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WESTERN MEDICAL REVIEW

A JOURNAL OF MEDICINE AND SURGERY.

Published Monthly by WESTERN MEDICAL REVIEW COMPANY,
701 Paxton Block, Omaha, Nebraska. Per Annum, $2 00

The WESTERN MEDICAL REVIEW is the official organ of the Nebraska State Medical Association and is sent by order of the Association to each of its eight hundred members.

A. L. MUIRHEAD, M. D., EDITOR.

Entered as second-class mail matter at Lincoln, Nebraska, post-office under the Act of March 3, 1879.

VOL. XI. LINCOLN, NEB., DECEMBER 15, 1906. NO. 12.

THE PROPHYLAXIS OF VENEREAL DISEASES.

As this subject is receiving a good deal of attention at present, it is fitting that it should be brought prominently to the attention of our medical readers.

The prevention of tuberculosis has become a prominent feature of medical thought and activity and the most important factor in accomplishing the desired results has been popular education in the causation and manner of transmission of this infection. Much effort and money are spent annually in attempting to limit the spread of scarlet fever, diphtheria and smallpox. Boards of health are organized and health officers employed in all large communities to look after the physical well-being of its citizens; and yet in every such community is found one or more foci of venereal infections whose constantly increasing ravages bid fair to outrival the "white plague."

No quarantine is ever established against these infections, no attempt at isolation is made, no placard put upon the house or other sign of danger displayed even though the health officers are fully cognizant of the conditions existing. This is not the fault of health departments, who are powerless, but of the general public, who obstinately close their eyes and ears to these matters, deeming them unfit subjects for general discussion or consideration. Can any subject properly be considered unfit for discussion when it deals with a condition which is annually responsible for death or lifelong misery of thousands of our most hopeful youth?

All communications relating to the WESTERN MEDICAL REVIEW should be addressed to A. L. Muirhead, M. D., 4248 Burdette Street, Omaha, Neb.

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Whether the community or the individual be regarded as responsible for "the social evil," we must acknowledge that the individual has a right to be informed as to the probable consequences of his (or her) acts if held responsible for the results of such acts. Most men and many women who contract syphilis do so before the age of twenty and are largely or wholly ignorant of the nature and consequences of the infection, frequently neglecting proper treatment till irreparable damage has been done. We do not condone the individual offense, but hold that they have a right to be enlightened. When a man gets drunk and falls into a trench that has no danger signal, we do not hold him blameless, yet we hold as most responsible for the injury done, the person whose duty it was to put up a danger signal but failed to do so. Medical inspection of prostitutes is useless as usually the only condition necessary to secure a clean bill of health is the payment of the required fee; besides this is by no means the only source of infection as thousands of both sexes, leading outwardly respectable lives, are constantly exposing others to unsuspected dangers. How often a young man or woman contracts gonorrhea through intercourse with one supposed to be inexperienced and previously virtuous. And still more injurious and criminal is the frequency with which we find a virtuous wife infected by a profligate husband. This is rendered more serious by the fact that often the unsuspecting wife fails to seek efficient treatment till irreparable mischief has resulted. This is perhaps the most appalling and at the same time the most difficult phase of the problem to be solved. Dr. Grandin, of New York, states that gonorrheal infection is responsible for 60 per cent. of all gynecologic operations, and Fournier's statistics show that 20 per cent. of females having syphilis are infected by their husbands soon after marriage.

What can be done to limit this increasing menace to public health? As in other infections, one of the chief means of limiting its spread must be education. Were young people of both sexes more familiar with the dangers and remote consequences of venereal diseases fewer would expose themselves to possible contagion. It is difficult to say to what extent our public schools can be enlisted in this

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line of educational work. The very general distaste for public discussion of anything pertaining to sexual matters is a serious difficulty in the way of presenting these facts to young men and women. The home should be the primary school in this branch, but usually falls short of its duty.

As in all other matters pertaining to public health, the physician must be the pioneer and leader. He best appreciates the situation and should not hesitate to point in the right direction. Let every physician either in country or city consider himself responsible for a part in this movement for venereal prophylaxis and take up this burden, as he has others before, and bear it bravely till success be achieved.

PRESIDENT LONG'S LETTER.

We wish to call the attention of our readers to the letter of Dr. F. A. Long, president of the Nebraska State Medical Association, which appears elsewhere in this issue of the REVIEW. The object of this letter is to extend the scope and usefulness of the state society of Nebraska and unify the interests and aims of all members of the medical profession. Physicians usually have two objects in view: one the earning of a livelihood, the other the prevention or alleviation of human suffering; both of these are more easily accomplished by united harmonious efforts than by single, individual efforts, often at variance, if not openly in opposition, to each other.

The past two years have seen much accomplished in the organization of this state along medical lines, but much still remains to be done. Dr. Long's letter is directed especially to those not members of the state society, but it is with those already members that the responsibility for future development largely rests. Less than half of the physicians practicing in Nebraska are members of the N. S. M. A., and there are towns in the state of 2,000 to 3,000 inhabitants with six to eight physicians, not one of whom belongs to the organization. There are, I believe, whole counties without representation in the state society. This condition is at least partly due to lethargy and lack of professional enthusiasm on the part of those

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already in the society. Many physicians on the outside need only a hearty word of encouragement and welcome to induce them to join the county or district organization. Professional jealousies and animosities, often due to purely imaginary causes, deter many excellent physicians from becoming useful members of medical societies, and these imaginary grievances can often be removed by timely and kindly personal efforts.

Let each reader of these pages constitute himself a committee of one to present the claims and benefits of organization to his personal acquaintances who are non-members, showing them the necessity for, as well as the advantages of, united efforts for the betterment of the profession to which they belong, as well as improvement in the sanitary conditions of the whole community.

Special Articles.

SOME OF THE RESULTS OF GONORRHEA IN WOMEN.

W. O. HENRY, M. D., OMAHA, NEB.

Whilst this subject has been considered in its various aspects for many years, still it is only within the last twenty-five or thirty years that it has assumed anything like due importance; but in the past it has been looked upon as a much more simple disorder than it really is. Medical men have generally recognized the fact only of its effects in the acute stage, until Lawson Tait first insisted upon the after-effects of an acute specific vaginitis. It has been said on more recent investigation that twenty-five per cent. of all abdominal sections in women are required because of the result of gonorrhea. Whilst this percentage appears to me too high, yet it is undoubtedly true that a very large number of such operations are called for because of a previous gonorrhea.

That specific vaginitis in and of itself is a comparatively simple matter and not difficult to cure, is conceded by all, but when we remember that most of these cases are followed by extension of the disease into the uterine cavity, into the Fallopian tubes and to the ovaries, we begin to perceive something of its importance. Then, too, some have seemed to think because there was not an acute peritonitis, tubal or ovarian abscess, that, therefore, the after-effects were not very serious, forgetting that many of these cases assume

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the low grade of inflammation affecting the endometrium, the Fallopian tubes, the ovaries, and at times produce adhesions in the pelvic cavity which sooner or later require operative procedure.

I presume it is well for some men that the laity does not know of these serious after-effects, for many cases of sterility in women are due to the gonorrheal infection contracted from the husband entirely unknown to the wife. Adhesions are formed about the Fallopian tube. Its fimbriated extremity is closed and sterility is as complete as if the ovaries were removed, so that nothing but a serious operation can restore the possibility of a conception, and this, too, as a result of a gonorrhea which has not produced an acute or serious vaginitis. It should not be forgotten that both tubal and ovarian abscesses may become sufficiently chronic to produce large masses in the pelvis on either or both sides of the uterus of several years' duration, greatly undermining the woman's health without her ever having known of any acute vaginal trouble; and whilst she is in ignorance of the cause of her failing health which follows marriage, and which may persist for years without her coming under the surgeon's knife, which alone can give her entire relief from her disability. In any of these bad cases, however, whilst complete removal of both tubes and ovaries is not always essential to give relief, still this perhaps is the rule. So that such women, if not rendered sterile by the disease, are likely to regain their health only by its artificial production; and whilst it is true that some of these cases, by conservative operation, may be cured of their disability and restored to the possibility of conception, yet when both tubes and ovaries are involved, very many times a complete salpingo-oophorectomy is required, and then it must be admitted that some of these cases, no matter how skillfully the operation is done, must necessarily result fatally.

Therefore it is true that many women fill premature graves every year because of operations which were required as a result of gonorrheal infection. Then, too, it is a further fact that some of these women die from a gonorrheal infection which develops an acute tubal or ovarian abscess or acute pelvic peritonitis, which has been unskillfully treated with or without operation.

We may therefore sum up the results of gonorrhea in women as follows:

After acute vaginitis, cystitis, acute peritonitis, we may have, as secondary results:

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First—A serious and prolonged chronic endocervicitis, often extremely difficult to cure.

Second—A chronic endometritis not so aggravated, but very tedious, and slow of recovery.

Third—Chronic tubal or ovarian abscesses, often producing invalidism, and curable only by serious operation.

Fourth—Adherent tubes and ovaries.

Fifth—Chronic salpingitis or oophoritis.

Sixth—Latent gonorrheal infection, which may result in serious sepsis following abortion or normal labor.

Seventh—Any or all of these may produce sterility, or disability not easily curable.

DR. F. A. LONG, president of the Nebraska State Medical Association, believes that the first and greatest need of the association is more thorough organization of the county societies. In the hope that he may be able to render some assistance to the various county societies in their efforts to increase the membership, and to the councilors who have unorganized counties within their districts, in organizing such counties, he wrote to the secretaries of all the county societies and the councilors, asking for the names of all those physicians who should, but do not, belong to the county societies, and the following letter has been sent to every physician whose name was furnished as requested:

NEBRASKA STATE MEDICAL ASSOCIATION.

MADISON, NEB., December 1, 1906.

DEAR DOCTOR: There are in the state of Nebraska today about 1,700 physicians, of whom 700 belong to the Nebraska State Medical Association, and many more should belong. Before the next annual meeting in May, 1907, we hope to have a membership of at least one thousand.

This is a day of organization. All classes of people realize this, and nearly all act upon it. The medical profession, less assertive than others, has not become so closely organized as it should be. No deputies are commissioned to solicit membership for medical societies. Though they need it the least, the most advanced men in the profession are the most interested in medical society work.

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Time and money spent in membership and attendance at medical meetings, is well spent,—not lost. Almost without exception physicians ally themselves with local orders, as the Masons and Odd Fellows, pay from $15 to $30 initiation fees, and, perhaps, $5 annual dues, mostly to be "good fellows." Good enough, but how much more important to his own, his family's and his patients' welfare to join the county and state medical associations which concern his profession,—his lifework; and at an expense of $3 for membership and annual dues, for both county and state associations. Surely a physician's lifework interests him to the extent of $3 annually.

What a physician may reasonably expect to gain by membership in an association of his professional brethren is largely self-evident and needs but to be hinted at here. During the last few years at least fifteen state associations have established and now own association journals, controlling the advertising pages thereof. Some state associations, notably the Michigan, Illinois and Pennsylvania, furnish for their members medical defense in malpractice suits. The fact that medical society membership gives physicians prestige with insurance concerns is not sufficiently appreciated by many. But why expand?

Of the method of organization only this can here be said: The county society is a component part of the state association, much as the county convention is a part of the state convention, and is represented in the larger body by delegates. A physician who joins the county society by that act becomes a member of the state association, and in no other way may membership in the state association be gained.

I am told you are not a member of the county and state associations. If not, why not? Let me adjure you to join the county society at once, if there be one; if none, organize one, and become a part of us, remembering that in union is strength.

Fraternally, F. A. Long,
President Nebraska State Medical Association.

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Notes and News.

DR. J. F. GOODS, of Trumbull, Neb., has located in Johnson, Neb.

DR. LEIGEROT, formerly of Greenfield, Ia., has removed to Red Oak.

DR. H. JANSS, of Marshalltown, Ia. will soon move to Milwaukee, Wis.

DR. MANCHESTER, formerly of Albion, Neb., has located in Carthage, Mo.

DR. L. W. LUHMAN has located at Uehling, Neb., coming from Wisconsin.

DR. A. E. MERKEL, formerly of Plattsmouth, Neb., has located near Des Moines, Ia.

DR. KARL SCHEMEL, of Scribner, Neb., has moved to the northern part of the state.

DR. HART has returned to Arapahoe, Neb., after a period of absence in the west.

DR. F. G. SALTER, formerly of Dallas, S. D., has located in Fairfax, the same state.

DR. D. D. POTTER has located in Seward, Neb., to engage in the practice of medicine.

AUBURN, Neb., has a new physician in the person of Dr. Herschel, formerly of Hawkeye, Ia.

DR. IRVINE, of Brock, Neb., is quite ill with typhoid fever at the home of Dr. Lutgen in Auburn, Neb.

DR. PACE, of Harvard, Neb., had a fall recently, which fractured his right arm at the elbow joint.

DR. F. M. BELL, of Grant, Neb., was married to Miss Laura Pearl Miles of the same town on November 7.

THE public schools of Beaver City, Neb., have been closed, owing to an epidemic of scarlet fever in the city.

DR. S. S. BUCKNER, a well-known physician of Wallace, Neb., died recently from a complication of diseases.

DR. ERNEST CHAPEK, of Fremont, Neb., has decided to relocate at Howells and take up general practice again.

DR. AND MRS. YAGER, of Julian, Neb., were in Omaha recently consulting a specialist in regard to the doctor's health.

DR. N. H. SQUIRES, of Hebron, Neb., was injured severely, quite recently, by falling from a ladder while picking apples.

DR. T. E. TAIT, of Creston, Ia., has just returned home after several weeks spent in post-graduate work in Chicago.

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ST. LUKE'S HOSPITAL in Denver, Colo., recently celebrated its twenty-fifth birthday by giving an elaborate charity ball.

DR. S. A. PRESTON, of Howells, Neb., spent part of Thanksgiving day at Blair, visiting his brother-in-law, Dr. Murdock.

DR. E. W. MARTIN, of Fremont, Neb., has had a round with an attack of influenza, but is moving among his patients again.

DR. CORA EICHAR, of Ainsworth, Neb., has gone to Washington and will locate in Sunnyside, in that state, with her sister.

DR. STUCKEY, of Hayes Center, Neb., has returned from Chicago after a period of post-graduate study in the hospitals there.

DR. G. W. CRESWELL, of Buffalo, Wyo., has departed with his family for the Isle of Pines, where he will make his future home.

DR. CHRISTENSEN, of Broken Bow, Neb., has gone to Chicago for post-graduate study in diseases of the eye, ear, nose and throat.

DR. A. JOHNSON, superintendent of the Home for Feeble-Minded at Beatrice, Neb., has announced his intention of resigning soon.

DR. EDITH SAUNDERS, of Grand Island, Neb., was recently married to Daniel Spence, of Fairbury. They will reside in Grand Island.

DR. DANIEL G. GOLDING, of Chicago, Ill., has located at Fremont, Neb., and taken up the special practice of the eye, ear, nose and throat.

DR. SMITH, of Brownville, Neb., after several months of post-graduate work in Chicago and Rochester, Minn., has located in Franklin, Neb.

DR. MOOREHEAD, of Ida Grove, Ia., has accepted the chairmanship of the section of medicine and therapeutics in the Iowa Medical Association.

THE death of Dr. Ruth Marvin, wife of Dr. H. N. Marvin, occurred at their home in Sioux City in November, following an illness of several months.

DR. T. C. LAWRENCE, of Tabor, Ia., is suffiering from an attack of apoplexy which has caused paralysis of the right side and also of speech. He is improving somewhat.

WHILE performing a delicate surgical operation at Cheltenham, Eng., November 27, Dr. G. B. Ferguson, ex-president of the British Medical Association, dropped dead.

TRICHINA caused the death of two persons and the severe illness of others at Yutan, Neb., last month. Infected pork improperly cured is supposed to be the source of the disease.

A NEW institution, to be known as the City Hospital, has been opened in Council Bluffs, Ia., the work in which will be limited to the treatment of surgical and maternity cases.

DR. H. L. ARNOLD, of the faculty of the Creighton Medical College,

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Omaha, has returned from Europe, where he spent several months in study in the hospitals of London and other medical centers.

ARAPAHOE, Neb., has a new hospital, opened the first of November. It is a thoroughly equipped institution, well prepared to meet the needs of both patients and physicians of the surrounding territory.

DR. C. O. ROBINSON, of Fremont, Neb., moves to Omaha on the first of December, in order to better look after his interests in a company that has recently been formed there and also to make a specialty of surgery.

DR. LAMB, formerly of Humphrey, Neb., and Dr. Higgins, a recent interne at St. Joseph's Hospital in Omaha, have formed a partnership for the practice of medicine and management of a hospital at St. Paul, Neb.

DR. GREENE, formerly head of the Lincoln asylum and at present superintendent of the Illinois hospital for insane at Kankakee, visited his former home recently and expressed himself as well pleased with his new work.

DR. A. P. WELLS died very suddenly at his home in McCook, Neb., the first of November. He had practiced medicine in McCook for almost twenty years and was well known not only as a physician but as a cultured, patriotic Christian.

THE health department of Sioux City, Ia., has prohibited rummage sales in that city, unless the goods offered for sale have been fumigated. The city physician states that several cases of contagious diseases have been traced to such a source.

DR. H. D. SINGER, assistant superintendent of the Norfolk Hospital for Insane, has gone to New York in charge of a demented Dane, who is to be deported by the government. Dr. Singer may accompany the patient to Denmark and then pay a visit to his former home in England.

AN effort is being made to have a bill passed at the coming session of the Iowa legislature, to secure the regulation and inspection of private maternity hospitals. It is claimed that many of these places are not only very unsanitary but also the source of crime and blackmail. The conditions in Des Moines are especially deplorable.

THE state of Kansas is pushing the crusade against the "great white plague." Dr. Crumbine, secretary of the state board of health, has prepared literature on the subject, calling attention to the nature of the disease, its early diagnosis and home treatment. Much attention is given to disinfectants and their uses. These pamphlets are to be distributed through the schools of the state, thus reaching almost every home.

AFTER thirty-seven years spent in the practice of his profession, Dr. D. W. Crounse, of Waterloo, Ia., retired from active work December 1 and will soon move to Alabama. He was tendered a banquet by his brother physicians, members of the medical profession coming from all parts of the state to attend, and in testimony of their regard they presented the doctor

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with a beautiful loving cup bearing this inscription: "To Dr. D. W. Crounse, from the medical profession of Iowa. Keen of eye, steady of hand, kind of heart."

DR. LOVE, of Kansas City, a representative of the American Medical Association, was in Leavenworth, Kan., recently soliciting the cooperation of the physicians and others in securing better laws along medical lines for the state of Kansas. He will endeavor to have enacted laws which will prohibit the practice of midwifery by the uneducated, the practice of medicine by druggists, the prescribing of glasses by men who have no knowledge whatever of diseased conditions of the eye, and some others of less importance. Dr. Love has retired from practice and devotes his entire time to this very important work.

NOTE.—Nebraska needs similar laws and should also move to secure not only their enactment but enforcement.—EDITOR.

Book Reviews.

WE are in receipt of the first volume of Keene's Surgery. The work is a composite one. It contains contributions from sixty-six American and English authors of international reputation. The work is to appear in five volumes. The first volume contains 983 pages, 26 text illustrations, and 17 colored plates. This volume is given up largely to the discussion of the general principles of surgery. Some of its chapters are Surgical Physiology, by Crile; Examination of Blood, by J. C. Da Costa, Jr.; Infection and Immunity, by Hektoen; Inflammation, by Adami. Then follow three chapters by Leonard Freeman, of Denver, on Suppuration, Abscess, Fistula, Ulceration, Ulcers, Mortification or Gangrene. These chapters are particularly well written and interesting. The author describes in full the pus infections differentiating and clinical picture produced, different micro-organisms so far as may be, and the course which each infection runs in the majority of cases. Figure 63 is a colored plate, showing in a most pleasing manner the granulating base of an ulcer. The arteries and arteriols are beautifully shown, as well as the proliferating connective tissue cells. The clinical forms of gangrene given by Freeman are senile gangrene, presenile gangrene, diabetic gangrene, gangrene of syphilis, gout and Bright's disease; Raynaud's gangrene, gangrene produced by ergot, frost-bite, emboli, carbolic acid; microbic, hospital and sloughing gangrene.

These chapters are the most complete on their subjects of any surgery in the English language, and are alone worth the price of the book. Following these is a chapter by F. C. Wood, on the Process of Repair. This chapter is followed by five chapters on "Thrombosis, Embolism, Erysipelas, Tetanus, Diseases caused by special infections, Diseases derived from animals, insects, and reptiles, and scurvy," by Charles H. Frazier. In the next to the last

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chapter Frazier discusses Hydrophobia in full, including history, etiology, diagnosis, prognosis and treatment. It is the best single article on the subject the writer has seen in any surgery, and is a valuable part of the book. The Traumatic Fevers are discussed in a pleasing manner, in a chapter by Eugene Smith; Surgical Tuberculosis, by J. C. Da Costa; Chancroid and Syphilis, by Martin; Tumors, by Bland-Sutton; Wounds and Contusions, by Crile, form the closing chapters of the book.

The first volume of this work gives evidence of being the best work in the English language on the principles and pathology of surgery. From the standpoint of practical surgery, so called, it does not seem to the writer to be as strong as other books which have appeared in English. Our writers, in the last few years, have filled our books with the mechanics of surgery, and methods of operation. It is pleasing to see a book appear which goes back to the basic principles of bacteriology, pathology, and anatomy, and leaves no points in these departments untouched. The book is not a book which one could say discusses in full the methods of operation, but describes the indications for operation, the clinical courses of the diseases, and their classification in the most pleasing and attractive manner. It certainly fills a long felt want in the library of American surgeons, and no surgical library would be complete without it. The mechanics of the book are good.

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Original Articles.

THE RATIONAL TREATMENT OF NEURASTHENIA.*

H. DOUGLAS SINGER, M. D., M. R. C. P., OMAHA, NEB.

The subject-matter of this paper is not in any respect new or original, but I venture to present it by reason of the frequency of the disease of which it treats and the common failure to appreciate it as a definite entity requiring definite treatment. If it were fully recognized that the disorder is a serious one, tending, where neglected, to become chronic and bring lifelong suffering and disability in its train, the proper means of treatment would be adopted early and many families thereby saved from great unhappiness. How frequently do we hear not only laymen, but also members of our own profession, say, "Oh, he is only a neurasthenic; there is nothing much the matter with him," leaving with the hearer the impression that the patient could be well if he wished. It is part of my object here to convince you that neurasthenia, a definite disease clinically, has probably also a definite morbid anatomy, although this has not been demonstrated practically. The symptom-complex is as definite as that of measles or chorea, and probably is quite as amenable to treatment as any other disease in the dictionary, although there is no question that it requires a vast amount of personal attention, tact and patience. The suffering it causes is just as real and probably more intense than in most bodily ailments. It is the cause of more litigation than any other disease, and the different opinions expressed concerning it by different physicians render it the gibe and scoff of the legal profession.

We are often asked, What is neurasthenia? The name itself supplies the best definition: A "lack of nervous force" due to "nervous exhaustion," which is the other name commonly used.

In recent years much attention has been directed, in the field of experimental neurology, to the study of nerve-cells under various conditions, and it has been found by means of refined methods of staining that overstimulation or fatigue results in certain definite changes in the arrangement and appearance of the elements of which the cells are composed. If the overstimulation be moderate in degree the cell recovers its normal appearance after a period of rest, but if the fatigue be carried to a greater degree a longer rest becomes necessary to restore the normal. Very similar changes are

* Read before the Nebraska State Medical Association, Lincoln, Neb., May 1 to 3, 1906.

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also produced in nerve-cells by the action of certain poisons when injected into the circulation.

Clinically we find that the causes of neurasthenia appear to be: predisposing—an inherited instability of the nervous system; and exciting—overwork, worry, loss of sleep, insufficient food, severe shocks and accidents, and various intoxications such as lead poisoning, influenza or grippe, and some autointoxications such as Graves' disease. Probably the most frequent cause is overwork, and particularly work of a responsible and detailed character, so that it is especially common among school teachers, professional men, and the heads of business houses. From our present point of view the only interest attaching to the extremely important predisposing factor is that it indicates that some persons are born with a less capacity for work and recuperation than normal, and consequently succumb to much less strain. This has to be taken into consideration in deciding whether a person has been overworked or not.

Clinically, therefore, we find that neurasthenia is a condition in which the nerve structures are called upon to supply more energy than they are capable of; i. e., they are overstimulated and do not recuperate in the time allowed for rest; or else it is the result of poisoning. Are we not therefore justified in assuming that in neurasthenia there is a definite change in the nerve-cells exactly comparable to that found experimentally in animals as the result of overstimulation or the injection of toxins, which I have just quoted?

This view of the morbid anatomy of neurasthenia as a definite structural change is suggested by some clinical facts. As far as I know, these cases never recover suddenly as do hysterics, an occurrence one would certainly expect if there were no morbid change in structure. Psychological studies show that neurasthenics give the fatigue reaction more readily than normal. Dr. Bellei, of Bologna, Italy, has shown recently that the work done by school children in afternoon school is much inferior to that performed by the same children in the forenoon, and that this is as true when there is an interval of two hours between morning and afternoon school as when only three-fourths hour intervenes. Further, the afternoon work was as bad at the end of three-fourths hour as it was at the end of one and one-half hours. These observations are of importance as showing that the nervous system is capable of fatigue and that it requires a considerable period of rest in order to recover its normal condition. They also indicate the need for care in the education of the young as a prophylactic measure against

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neurasthenia which is unfortunately not very uncommon among persons still at school.

If we grant this view of the morbid anatomy of neurasthenia to be correct we at once transfer it from the realm of functional to that of organic disease, although we of course do not thereby imply that it is incurable any more than we do with pneumonia when we say it is organic and not functional. In fact it would appear as if neurasthenia were a condition in which the physician can do more towards effecting a cure than in any other disease, although he cannot of course put a stable nervous system in the place of the one the patient inherited. It is also quite possible that a bad attack of neurasthenia may leave the instability more marked.

The great importance of this conception of neurasthenia as an organic disease is that it gives us a basis for a rational therapy and is the first necessary step towards carrying it out, because we at once adopt the correct attitude towards the patient and are able to enter into his troubles with sympathy and intelligence instead of becoming impatient with him, and at once gain his confidence. He will often tell you that you are the first person who has ever understood him, and if he will say that you may be nearly sure you can cure him if you have the patience. One of the worst features with which the neurasthenic has to contend is the attitude of his friends and relatives towards his complaint. Everybody conceives it his duty to try and drag the patient out of himself, as it is called; to induce him to take exercise; to go out more into society and to other forms of entertainment and amusement; all of which tend to still further overtax an already overburdened nervous system, and by keeping him out at night, etc., to reduce the time allowed for recuperation, such time being already too short. The unfortunate individual tries to follow this advice in order to avoid importunity and insinuations of laziness, but sooner or later is obliged to consult his doctor, who maybe tells him there is nothing much the matter with him, and as often as not gives him a tonic and tells him to get out and take more exercise in his spare moments. The tonic makes him feel better, as well as the assurance that he has nothing much wrong, and he goes back to his work with renewed energy, takes long walks or some other exercise, but, alas! soon finds that his feeling of strength is fallacious and that in reality he is more exhausted than before. He is then often treated with a round of nerve sedatives with hypnotics to obtain some sleep. These measures dull his sensibility for a time and he continues with his daily task, but with steadily increasing depression and misery. Too

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often he falls into the hands of patent medicine vendors and quacks and goes steadily downhill to become either a drug fiend or a confirmed invalid, hopeless and discouraged, a burden to himself and all who come in contact with him. We must all have seen examples of this disastrous sequence of events and must acknowledge that it is due in part to the failure to realize the exact nature of the disease.

From what I have just said you will gather that I have no very high opinion of the treatment of neurasthenia by drugs, and I am prepared to say that I do not think any case was ever cured by drugs. By this I do not mean to imply that they are useless, but that they must be employed with the hope of assisting nature and not replacing her.

The rational treatment of neurasthenia, as of every other disease, must depend upon knowledge of its nature, and consists in removing the cause and instituting means whereby the damaged tissues are allowed and assisted to recover. Basing our treatment upon the supposed pathology I have indicated there are obviously two things to do: (1) give rest from the stimulation which is causing the disease, and (2) provide proper materials in sufficient quantity to allow of reconstruction. In other words, the indications for treatment are rest and feeding.

The degree of rest cannot be prescribed except by considering each individual case, and will vary from a vacation of a few weeks in the country to complete and absolute isolation in bed. Early and slight cases who for a week or two have found their business a burden, their sleep hardly come by and troubled with unpleasant or terrifying dreams from which they wake unrefreshed, and who upon examination show little or nothing of the physical signs of a developed neurasthenia, may with confidence be assured that they will entirely recover if they will go away for a few weeks, leaving no address, to some place where they can amuse themselves quietly with fishing or golf, or some other quiet, congenial, outdoor pastime; will eat simple fattening foods plainly cooked, will avoid fatigue and retire early to bed. These are the patients, however, who tell you that it is impossible for them to leave their business, and say they will be all right if you will just give them a tonic. To such a man it is necessary to point out that it means either a short rest pleasantly taken now, or many months of enforced idleness and suffering in the near future, the interval having been spent in doing his work badly. Women at this stage are much more difficult to deal with, because their home ties are so much greater and

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their duties so much more hardly performed by another. Nevertheless the same advice ought to be given and the same line of argument followed. It is of course imperative that she leave her children at home, as they are often one of the main factors in producing the breakdown. Another difficulty is to find some means of occupying her mind while away, and I think it is best to recommend that she visit with congenial but not too intimate friends who will allow her to spend her time quietly in driving or walking or in a hammock with her needle and a book. She must certainly not be taken out to a round of social amusements.

Among these early cases this amount of rest, with the administration of a bitter tonic and proper feeding, is all that is necessary, and if such means could be adopted in all, and proper directions were given and carried out as to the amount of work, rest and exercise to be permitted on return, there would be but few examples of pronounced neurasthenia.

The opposite extreme in the matter of rest to which I have referred consists in putting the patient in bed and having everything done for him. It is almost essential to remove him from his home surroundings and to place him among strangers. Attempts to treat such cases at home are too often followed by failure and discouragement, and nearly always after such an experiment I promise myself that I will never again try to do so. A special nurse is necessary and is indeed one of the most important elements in the successful treatment of neurasthenia. She, like the doctor, must realize that her patient has a real and serious disease in order to be able to handle him properly. Her greatest need is tact, and while she must be sympathetic she must not be sentimental. Her task is probably the most difficult one in the field of nursing. It is her duty to keep the patient amused and interested, and by firmness and tact to see that all directions are strictly carried out. The patient should not be allowed to talk to the nurse about his sensations and feelings, the recital of which should be reserved strictly for the physician. These are all difficult tasks and it may be necessary to change the nurse if the first does not suit.

Isolation of the patient in the extreme cases now under consideration must be complete, no visitors or even letters being allowed. He should not be permitted to read, and as a rule he does not care to on account of the eyestrain it causes, but the nurse may be allowed to read to him for a short time. Certain hours of the day should be set apart for repose, and sleep if possible, the room being darkened and everything kept as quiet as can be. As the

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condition improves more and more things may be gradually permitted and letters and visitors slowly introduced, their effect being carefully watched. It is well to have everything done at certain stated hours which are deviated from as little as possible. It will be found that most patients after the first few days appreciate and enjoy the absolute repose and quiet, instead of becoming restless as one might expect. The duration of the complete rest in bed varies from about five to eight weeks, and permission to get up should be preceded for a time by resistance exercises performed in bed. The process of getting up must be begun very carefully and gradually, never allowing the period to be long enough to cause fatigue. As strength returns, short drives and short walks may be gradually instituted and slowly increased. Everything at this stage depends upon the gradual resumption of a more normal mode of life. Following the rest treatment a trip to the seaside or into the country is advisable, to continue until restoration to health seems nearly complete. Return to active occupation should be permitted only very gradually and strict injunctions should be given to see that plenty of rest is taken for a long time to come. Indeed it is better to keep these cases under observation for at least twelve months after they seem to be cured.

Between these two extremes of rest, a short vacation and absolute isolation in bed, there lie an infinite number of variations which may be adopted to suit individual cases.

It may be of interest here to refer to the treatment of neurasthenia by work, which is advocated especially by Dr. Hall, of Boston, who has obtained some very good results. This may at first sight appear to be contradictory to the supposed cause of the trouble, but there is less discrepancy than would appear, for the work advocated is manual and different to that to which the patient is accustomed, and it is unquestionably true that the best recreation is often a different kind of work. Dr. Hall keeps his patients in bed for about a week and then tries to occupy them with basket-making or some simple but interesting manual occupation. The great difficulty is to get the patient to start working, as many of them become exhausted from merely sitting on the side of the bed.

The second element in the treatment consists in giving sufficient nourishment—often a very difficult matter in the more advanced and serious cases. With all milk is of the greatest importance, not only from its high nutritive value, but also because it acts as a sedative. In some cases it is constipating in its action, and this must be combated by the use of drugs, but in many it seems to act

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in the opposite direction by leaving a more bulky residue in the bowel than it has been accustomed to and so promoting its own expulsion. Where the complete rest cure is being given it is wise to start with nothing but milk given in small quantities at short intervals and gradually increasing the dose from about two to three or four quarts per diem. It is rare that milk cannot be borne, although patients often tell you they cannot take it. It may be necessary at first to skim it or dilute with seltzer water, but nearly always this can be soon omitted. If the taste is unpalatable it may be flavored with a little coffee, chocolate or caramel. It may also be made into jellies with isinglass and flavored with vanilla or other material. This strict milk diet seems to act as a sedative and promote rest, and patients often rapidly improve and soon begin to ask for food. The milk is to be continued throughout the treatment, but we then begin to add gradually solid food at regular meal hours, choosing easily digested materials plainly cooked; at first one meal a day and finally increase to three. It is better to increase slowly rather than to run the risk of giving too much and being compelled to reduce, which is always a source of great discouragement to the patient.

With this enormously increased ingestion of food it is necessary to provide something to take the place of exercise and allow of its proper assimilation. Active exercise being interdicted, its place must be taken by passive exercise in the shape of massage at first and later passive movements and resistance exercises. The value of the massage is that it promotes the circulation through the limbs, which is very dependent upon the contraction of muscles for its proper maintenance; also it helps to improve the tone of the muscles and keep them in condition to resume their functions when the patient is allowed up. Occasionally patients object to massage and feel exhausted; it will then usually be found that the feature objected to is the slapping movement, or tapotement as it is called, which may well be omitted as it has no great value. The essential movements are the friction of the skin and thorough kneading of the muscles. Massage must be started gently and gradually increased, its effect being watched. When properly carried out it does not fatigue but produces a sense of rest and desire for sleep, which are very valuable to such a patient. It is better performed daily, beginning with about twenty minutes and increasing to about an hour a day.

Up to this point I have said nothing about the treatment of symptoms, which is often a matter of prime importance, although

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the patient should not be allowed to dwell too much upon them. Most of the symptoms are exaggerations of sensations which are normally present but do not reach consciousness, and these are best treated by suggestion, assuring the patient that they are dependent upon his weak state and do not indicate any grave disease but will disappear as he gets stronger. The quiet unconcern and assurance of the doctor will do far more to get rid of these troublesome symptoms than all the drugs in the pharmacopeia. Often, however, drugs have to be given, and I find that the simpler they are the better, and generally prescribe a bitter stomachic flavored with peppermint or some other highly aromatic drug and tell the patient what effect is expected from it. Remember that it is by suggestion that Christian Science and other so-called cures effect their object.

Some symptoms, however, call for more remark. First among these is insomnia. The patient is often more or less habituated to the use of hypnotics and it may be difficult to omit them, but in my experience it is rare that they need be continued after the first night or two. If the patient is up and about, a warm bath before retiring, followed by a glass of hot milk or malted milk, will usually be sufficient provided that the patient has been in the open air and has been resting during the day, as suggested above. Where he is in bed all day an alcohol rub and a glass of hot milk may be tried, combined with the quiet assurance that sleep will follow. It is always well to give the patient to understand that he will not be allowed to remain awake all night, as the nurse has an unfailing remedy to give him if he is awake after a certain hour. This relieves his mind and sleep will often come without the need for the administration of any medicine. For the first night or two I hold in reserve in this way trional or trional and sulphonal combined (this combination is a good one, as the first acts rapidly, the last after some hours, so that a more or less continuous influence is obtained). After one or two good nights' sleep have been obtained in this way, and the patient's confidence is fully gained, this can usually be omitted, and it will often be found that a few drops of essence of peppermint in hot water will be enough should anything at all be required.

For the relief of nervous spells or chills with great restlessness I find that the essence of peppermint again gives as good results as the more powerful drugs, and to this sometimes add a little nitroglycerine or give small doses of apomorphine hypodermically. This last drug in doses of 1-50 or 1-40 of a grain does not cause

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vomiting but will often promote relaxation. In my experience the administration of bromides and such-like depressing remedies only tends to increase the patient's misery and is liable to upset the digestion upon which the patient must rely for his recovery. I have seen cases where rapid improvement has occurred when bromide was withdrawn and some simple stomachic substituted with the assurance that it will produce the desired effect.

Lastly, but not by any means least, the bowels must be regulated, and for this purpose abdominal massage and the utmost regularity in regard to the hour at which the patient is given the bed-pan or sent to the closet are of the greatest value. Here, too, suggestion may also play its part; quietly assuring the patient that in a short time the bowels will establish the habit of moving at a certain hour is a potent means for achieving this end. Of course cathartics are often necessary at first, and for this purpose one of the aromatic preparations of cascara sagrada, or aloes, nux vomica and belladonna are as good as any.

I have said much on the use of suggestion as a therapeutic measure in the relief of symptoms, and I am confident that it will do all that I have claimed for it. Suggestion is constantly employed, though often unconsciously, by many physicians, and indeed it is this fact which makes all the difference between a successful practitioner and his neighbor who fails, although both may use the same remedies. The first essential in its use is a firm belief on the part of the doctor in its efficacy. One cannot hope to convince another unless one believes. This is the whole secret of the success of quacks and the various cults. There are many cases in which one fails in spite of the employment of the correct method because one has not succeeded in getting in touch with the patient. We must have all experienced this feeling, and where it is present failure is almost certain. It is therefore worth while to spend some time in trying to gain the patient's confidence before undertaking a long and tedious case, and I firmly believe that with practice failures will become fewer. These remarks, while especially true in the treatment of neurasthenia, apply also in large measure to general medicine. Confidence in the measures adopted on the part of the physician breeds confidence in the patient and in no small measure assists to a favorable result.

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THE NECESSITY FOR EARLY DIAGNOSIS IN CANCER OF THE UTERUS.*

CHARLES O'NEILL RICH, M. D., OMAHA, NEB.

In this paper the word cancer is used in its general sense, and will refer to those forms which attack the cervix. Cancer of the fundus is slower in growth and comparatively rare. Cancer of the cervix is not so rare, grows more rapidly and so invades rather by extension or metastasis the neighboring parts. Because of the rapidity with which it grows the diagnosis is frequently not made until it has passed beyond the possibility of a cure. We hope to show how, by reason of the arrangement of the lymphatics of the cervix, the disease spreads so rapidly, and why it so soon passes beyond the stage when we can hope for a cure by operation; then to show how the mortality can be reduced, and point out the early symptoms and diagnostic points in cancer of the cervix; and finally to show why operation, when the disease has progressed, is so very hopeless.

We believe that cancer starts primarily as a local process, and that its later and apparently independent growths occurring in other organs are really metastases from the primary tumor.

Porier has shown the uterus to be rich in lymphatics, arranged in a deep and superficial network; from these networks the collecting lymphatics start. The collecting trunks of the cervical lymphatics are arranged in three pedicles, the first composed of two or three trunks which run directly outward, then along the uterine artery for a short distance, where they pass above and in front of the ureter to the lateral wall of the pelvis, terminating in the superior and middle glands of the middle chain of the external iliac group, which is placed in the anterior surface of the internal iliac vein. Sometimes an interrupting glandular nodule is found on the level where these vessels cross the ureter; when of large size this constitutes the justa-cervical gland. The second pedicle arises from the same level as the primary pedicle and is composed of two or three trunks which pass obliquely upward from the cervix, going below and behind the ureter, terminating in a gland of the internal iliac group at a point located on the anterior terminal trunk of the internal iliac at the level of the origin of the uterine or vaginal arteries. The third pedicle is composed of two collecting trunks arising from the posterior surface of the cervix; they are directed

* Read before the Nebraska State Medical Association, Lincoln, Neb., May 1 to 3, 1906.

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downward in the vagina, then backward across the sides of the rectum to pass within the sacro-rectal or utero-sacral ligaments, and terminate in the sacral and promontory glands.

By this review of the lymphatics, we see what an extensive distribution they have and how very intimately they are related to the other pelvic viscera, and further we can see what a very extensive dissection is necessary in order to remove the disease when metastasis has progressed.

Cancer of the uterus is a disease of middle life, the largest percentage of cases appearing between the thirtieth and fiftieth years. Nearly all cases of cancer of the cervix give a history of having borne children. It is a disease of the child-bearing period, a period when the patient is most important to the welfare of the family. The diagnosis of cancer of the cervix involves more responsibility than any other diagnosis a physician is called upon to make. Every failure in diagnosis, or every diagnosis made when the disease has passed beyond the possibility of operative relief, means a human life,—a life that can least be spared from the family circle.

Statistics on cancer of the cervix show a mortality of 100 per cent. in cases not operated upon, and in those cases operated upon less than 20 per cent. live five years. Such an enormous mortality places upon the physician a very grave responsibility. We believe it is possible to reduce this high mortality by educating the laity and by impressing upon the profession the need of a careful examination in all cases which come to us complaining of symptoms referable to a diseased uterus.

The patient may ignore the presence of a watery discharge or hemorrhage, or it may be she thinks, as many unfortunately do, that hemorrhage is normal to the menopause, either as an approach to that period, or that she is becoming rejuvenated after her menses have ceased for a time. It may be she feels a hesitancy in submitting to an examination, until it is too late. Possibly she suspects cancer, but believes it cannot be cured, and waits until the symptoms become so urgent that the disease is beyond relief.

The family physician can do much in reducing this high mortality. In every case where the patient complains of a vaginal discharge or slight hemorrhage, even if only amounting to a show of blood, or any other symptoms which might indicate a diseased uterus, he should insist upon an examination, and absolutely refuse any local medication until after he has made a thorough examination, and satisfied himself as to the cause of the symptoms of which the patient complains. If in the least doubt specimens should be obtained,

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either by removing a section from the cervix or, if the disease be higher up, uterine scrapings; these should be sent to a competent pathologist for microscopic examination. At times physicians, in referring a case for operation, will say that the case has been treated several weeks locally for an ulcerated cervix, but it finally turned into cancer. I do not believe this state of affairs is due to ignorance on the part of the family physician, but rather to a too hasty examination.

The early symptoms of cancer of the cervix are often vague; the onset of the disease is very insidious, so that the true condition frequently passes unnoticed. Perhaps the first symptom met with is a show of blood on the slightest manipulation, as in making an examination by the mere touching of the cervix with the examining finger or instruments. Or the patient will give a history of a small amount of blood on coitus or after taking a douche. Soon hemorrhage will appear. This is a most frequent symptom and is nearly always present early in the disease. It may be slight in amount, appearing in between menstrual periods, or there may be menorrhagia. Hemorrhage is a very important symptom and should always be most thoroughly investigated. In rare cases hemorrhage may be absent. When such is the case, there are as a rule other symptoms present which cause the patient to seek relief.

A watery discharge is an early symptom of the disease. This may be clear or slightly tinged with blood. Fetor may be present at this time. Pain is rarely present now, and when present would indicate that the endometrium has become involved by an upward extension of the disease from the cervix. In making a vaginal examination in an incipient case of cancer of cervix you will at once detect an enlargement of the cervix; the tissues will seem nodular and indurated and on manipulation will bleed slightly. This is not true of an ordinary ulcer, which will not bleed readily.

If the cervix be exposed the mucous membrane will show a number of small elevations having a bluish-white appearance, looking very much as if the tissue was ready to burst. On closer examination at several points groups of small papillæ may be seen. As a rule these are more or less obscured by a lot of ropy-like mucus which has to be carefully removed before they can be seen. These little papillæ often grow rapidly and form the so-called cauliflower excrescence seen in cancer of the cervix which may have a narrow basal attachment. These masses may occupy part of one or both lips or may embrace entirely one or both. At the same time these are forming the growth is involving the underlying cervical tissue,

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rapidly spreading into the vaginal vault or up along the uterine artery into the broad ligament. The excrescences break down in whole or in part. Examination fails to locate the cervical landmarks. Much of the cervix is gone and what remains is hard and nodular. The margins of the depressions are indurated and irregular. The surrounding tissue is indurated and the lymphatic glands are enlarged; in other words, a picture of advanced cancerous growth, a time when operation offers no hope for a cure.

There is another form of cancer of the cervix which shows a very different picture earlier in the disease. It is a variety which grows into the surrounding tissue and does not project. The cervix may be normal or somewhat enlarged in appearance, but upon palpation will show the presence of hard nodular masses. The growth may involve almost the entire cervix before any breaking down takes place. The clinical course of those cases of cancer of the cervix unoperated upon is most distressing; hemorrhage, foul vaginal discharges, and the odor in these cases is very characteristic; emanations, cachexia, and the pain, which is most severe, necessitating the free use of morphine. We have all seen this picture and have felt, I am sure, the necessity of recognizing the disease in its incipiency.

When we discover these cases early, it is our duty to insist on immediate operation as the only hope of cure. We can only hope for a cure when the entire disease is removed and we can see from the arrangement of the lymphatics how impracticable it would be to remove entirely a growth in which much metastasis had taken place.

It is the duty of all interested in cancer to study the subject and determine upon the best means by which these growths can be removed. Our hope of a cure is doing a radical operation, in removing the disease. Undoubtedly the highest percentage of cures would be obtained by removing the entire uterus with its adnexia and a careful dissection of the pelvic lymphatic glands. These extensive operations are only justifiable when not attended by a too high primary mortality. The operation is comparatively easy in those cases in which the uterus is movable. These patients are well nourished and can stand an extended operation fairly well, so that we should not be content without removing the lymphatics on the sides of the pelvis and those in relation to the uterus, as well as the tissue adjacent to the cervix. The primary mortality in these cases is about 25 per cent. The operation is, however, much more difficult in those cases in which there are numerous adhesions and

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the disease has spread beyond the confines of the cervix. These patients are not as a rule in good condition, but are emaciated and exhausted more or less from the disease. If the operation is indicated in a given case of this class, and her condition does not warrant one prolonged operation, the dissection of the lymphatics should be a secondary consideration. The primary mortality in this class is high, and the benefit to be derived is at the best temporary, for the metastasis is so extensive that one can practically never remove the entire disease.

A MASTOID OPERATION FOLLOWED BY DEATH FROM HEMORRHAGE ON THE NINTH DAY.*

M. H. GARTEN, M. D., LINCOLN, NEB.

I am led to report this case on account of its belonging to a class in which the true condition of the mastoid region and lateral sinus is often masked by symptoms of malaria or typhoid fever, also the immediate cause of death from hemorrhage in this case, an unusual one.

I was called to McCook on the evening of November 1 last to see Robert S., aged 17, who complained of earache on the night of October 11, which was followed by discharge of pus, flights in temperature together with chill and sweating during the following three weeks, which led the attending physician to derive the diagnosis of malaria. Another physician was called in consultation at the third week, who held the opinion that the case was one of typhoid fever. The fact of the disagreement of these physicians, who are men well up in their profession and each having sufficient cause for his opinion, led me to suspect that the true nature of these cases is more frequently masked and overlooked than is generally supposed, as will subsequently be indicated by the report of this case as given by Dr. S. C. Beach, the attending physician.

November 2 the usual mastoid operation was made with mallet and chisel, the wound being extended into the lateral sinus. The operation itself embraces nothing new or novel, granulating tissue being found in the mastoid region and pus at the lateral sinus.

I will here give the report of the case as furnished me by the physician in charge, which is indeed a very complete one.

NOTES ON CASE OF ROBERT S., AGED 17.

On October 11 was taken with severe pain in left ear, pain radiating to temple and occiput. Under treatment the pain moderated

*Read before the Nebraska State Medical Association, Lincoln, Neb., May 1 to 3, 1906.

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and by the third day after was nearly gone; on the next day a profuse discharge of pus took place from this same ear and the patient felt quite recovered; on the 16th, however, he had a severe chill, followed by a high fever, and that in turn followed by profuse sweating. A diagnosis of malarial fever was made and quinine was given, and on the next day no chill occurred; the day after, however, he had a severe chill and later the same day another chill. The quinine was increased and no chills occurred for twenty-four hours. About this time the patient complained of pain in his neck and shoulders, quite distressing in character, and for which hot fomentations were ordered, with some quieting effect. The discharge from the ear continued at intervals and the patient did not complain of any distress in the ear, although washing of the ear was done with creolin sol. several times a day in order to keep it perfectly clean. It was suspected at this time that pus was the underlying cause of the trouble and search was made for an abscess, but none could be found. Then consultation was called and the patient rigidly examined, but unfortunately an agreement was not reached, which resulted, on November 2 (three weeks after the onset of the trouble), in calling further consultation, at which time a diagnosis was made of pus ramifying from an original middle-ear trouble, and an operation was decided upon with a view to evacuation of pus when found. There was no evidence of mastoid trouble excepting slight swelling and redness over the region of the mastoid, the most severe pressure over this region failing to produce any sign of tenderness. The patient at this time was thin and showed the bad effects of the struggle through which he had gone. Had no appetite, chills occurring at irregular intervals, bowels somewhat constipated, tongue furred and breath offensive. Operation performed November 2 at 1:30 o'clock in the afternoon, under ether.

Operation Described.—Patient had pulse of 76 and temperature 98.4° just before the operation, which took about one hour and twenty minutes from the time of starting the ether. Patient's condition was good when put back to bed, excepting pulse was not so strong and was more rapid (110). Injected 4 ozs. of normal salt sol. and gave 1-30 strych. hypo., and at six o'clock pulse was 126 and temperature was 101.2°. The temperature gradually lowered until 1:00 a. m., when it registered 97° (subnormal). More strych. was given and at 10:30 the next morning it registered 98.4°. During all this period the patient did not experience trouble with the stomach, and water was given in gradually increasing amounts with no bad effects, and at one o'clock in the morning beef-tea,

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coffee and cream and hot broth were started and were found to be well borne by the stomach.

Second day. Had a fairly good night, sleeping in all but five hours. Temperature gradually arose, until at 9:30 a. m. it was 103.5°. An enema was given with excellent results and at three o'clock in the afternoon the temperature was normal. However, after resting quietly for a time at eight o'clock in the evening the patient had a chill lasting twenty minutes, followed at nine o'clock by a temperature of 103°. At eleven o'clock another chill came on and a dressing of the wound performed, resulting in the finding of a considerable quantity of pus, which when sponged away was followed by more,—in all probably a teaspoonful of pus removed,—the wound washed carefully and repacked. Temperature went down to 102°, and later to subnormal (6 a. m.). This is the beginning of a period when the temperature would rise, a dressing would be done and the temperature would fall. For instance, that afternoon it went up to 105° and after dressing went down to 102°. At the dressing done that night at twelve o'clock not much pus was found, and the wound looked much cleaner—but alas for fond hopes! the next afternoon an abscess was discovered on the neck about two inches and a half obliquely from the operation wound, which on opening gave forth pus identical in characteristics with that which was originally obtained from the lateral sinus. It was suspected at this time that there was some connection between the two and an effort was made to find such connection, but failed.

About two hours later another chill came on, lasting half an hour, but the temperature only rose to 102.2°. About this time the patient began to complain of pain in the neck and grew very restless. Another dressing was immediately done and this time a tube was inserted to the bottom of the abscess cavity, which drained the wound freely but distressed the patient somewhat. The history sheet which I send will show the fluctuations in temperature, and I can only add that the next afternoon I discovered an amplification of the neck-abscess and opened this up freely. It extended away from the direction of the mastoid and I felt pleased at this, thinking that I had been mistaken in my surmise that there was connection between the openings. My hopes were dashed the next day by the discovery of a sinus leading directly up towards the operation-wound—could discover no dead bone, so cleaned out the tract thoroughly and drained with gauze (the patient was very nervous and I had to do what little I could in a hurry).

Left the patient on Friday evening resting quietly and feeling

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much better, having taken nourishment well during the day. At 12:30 midnight the nurse discovered a spot of bright red blood on the bandage near the opening in the mastoid—the patient at the time was resting quietly and in no pain. By the time I arrived (five or six minutes) the hemorrhage was so profuse that I found him lying in a pool of blood which wet him half way down the back and soaked through the mattress. The hemorrhage was immediately stopped (plugging the sinus with gauze over which rubber tissue was used), but the patient sank gradually from this time on until 6:15 a. m., when he died, having regained consciousness only once or twice during that interval. The patient expired on the morning of the ninth day after the operation.

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Abstracts.

The Bearing of Metabolism Experiments Upon the Treatment of Some Diseases.

As we all know, the body is built up from the food intake, the composition of which is proteids, carbohydrates, fats, salts and water, plus the oxygen intake. It is necessary, therefore, in order to estimate the metabolic process, to estimate the food intake and also the liquid and solid excreta, plus the carbon dioxide and water output.

The proteids and salts supply the tissue elements required to grow or repair waste. The proteids, carbohydrates and fats furnish the energy for bodily activity. Since the heat energy of each of these food substances is known, we can measure the absorptive power of the intestines by finding the difference between the intake and the heat equivalent in the feces. We can also measure the total energy supplied the body in the food absorbed by deducting from it the heat equivalent in the urea, as this is practically the only product of metabolism not completely oxidized. For example, the diet in a certain definite time, if completely oxidized, would yield 1,000 calories; in the same time the feces yield 450 calories, showing an absorption by the intestines of an amount equivalent to 550 calories. The urea for the same time yields 250 calories; so, unless there has been an increase in body weight, the body has utilized as heat or energy the remaining 300 calories.

It has been repeatedly shown that digestion and absorption require a great deal of energy, and in disease, especially where debility is pronounced, this becomes an important matter. Can we aid the digestive apparatus by performing part of the work beforehand? Metabolism experiments prove that, although albumoses and peptones can keep up the nitrogenous equilibrium of the body, they are not desirable from a dietetic standpoint, because their irritating qualities cause increased secretion, which means more work, and tend to cause diarrhea and lessened absorption. The same is true when sugar, a product of starch digestion, is substituted for starch in the diet. The sugar can take the place of the starch, but if given in anywhere near the amount necessary, will cause gastro-intestinal disturbance and lessen the total absorption. It is doubtful if peptonized milk has any advantage, as it calls forth more gastric juice than ordinary milk, which can easily be kept from clotting by the addition of sodium citrate. Any quantity of predigested nitrogenous food absorbed in excess of the structural needs of the body, soon appears in the urine as urea, unless laid on as flesh; one-half the quantity absorbed frequently appearing inside of seven hours. The same amount of energy can be more advantageously obtained from carbohydrates, with less effort on the part of the excretory organs in eliminating the products of combustion. There is no doubt than many people eat too much nitrogenous

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food. There is abundant proof that two ounces of proteid, that is, nine ounces of lean meat, is a sufficient amount for an ordinary daily diet in health; and in such conditions as chronic granular kidney, arterio-sclerosis, gout and disease of the digestive organs, this amount should be the limit allowed.

The importance of rest in conserving energy is shown in a metabolism experiment where a man maintained equilibrium on a diet representing 2,700 calories, while resting, but lost weight on a diet representing 4,340 calories, working. This shows the advantage of confining patients to bed during treatment of fevers, respiratory and heart diseases, anemia and other conditions endangering nutrition. It has been demonstrated that the energy used during sleep is very much less than when up and around, even without unusual muscular effort. Even light increases metabolism, probably by causing involuntary muscular activity. Although exercise increases oxidation it does not increase proteid metabolism unless excessive. One experiment showed 150 calories used during sleep, 500 during the same length of time in moderate labor and 1,000 calories in hard labor. Although rest lessens metabolism, feeding is preferable during disease unless directly injurious, as fasting lessens resistance to infection. Fasting where necessary is much better borne in bed and warmly covered. To illustrate the advantage of even partial feeding over fasting we call attention to the fact that the body may survive a loss of half its weight under partial feeding, where death will result before one-third its weight has been lost if no food whatever is given.

As rectal feeding often becomes necessary, its value in nutrition is important and a knowledge of the kind and quantity of food absorbed and its relation to the body needs should be obtained. When a mixture of dextrose, warm milk and proton (sodium caseinogen), containing 350 calories was given per rectum three times a day, it was found that 80 per cent. of the total nitrogen was absorbed, while with the usual milk, egg, sugar and salt enema, much less was utilized. A series of enemata consisting of eggs, dextrose and cod-liver oil in emulsion in saline solution proved of great value in conserving proteid. Alcohol in 10 per cent. solution delayed the absorption of sugars by rectum but raised their caloric value, being itself oxidized.

Another valuable enema was yolk of egg, dextrose and pancreatized milk, given four times a day. Of this enough is absorbed to supply half the need of a patient in bed. Large enemata given slowly do not need frequent administration as they tend to antiperistalsis. This was demonstrated on a cat in which the antiperistalsis forced the fluid through the ileo-cecal valve into the ileum.

When muscular tissue is growing or after prolonged fasting, much more proteid material is required than ordinarily and proteid is then retained from a diet which would normally lead to an increase of urea. A woman whose weight had fallen through fasting to 39 kilos, was given a diet of proteid, fat and an abundance of carbohydrates in the form of bread. Her absorption was almost complete, 96 per cent. of both proteid and fat being utilized; there was no diarrhea or vomiting and her weight increased in a short time

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from 39 kilos to 52 kilos. This shows that after all severe fevers, feeding should be at frequent, regular intervals, the diet should be varied and contain more than the normal amount of nitrogenous material.—London Lancet, April 28, 1906.

Physiological Economy in Nutrition.

Irving Fisher, professor of political economy at Yale University, has been conducting experiments to discover whether proper mastication and enjoyment of food would produce the "physiological economy" claimed for it by Mr. Horace Fletcher, and also whether it would lead to the use of low proteid according to the standard advocated by Professor Chittenden. The result of the experiment would seem to answer both these questions in the affirmative. The experiments were conducted with nine Yale students and lasted from January to June, 1906. Careful record of the amounts of food taken, and the constituents in proteids, fats and carbohydrates, was kept for each man for each day. To avoid weighing at the table, the food was all weighed in the kitchen and served in "standard portions" of 100 calories each or simple fractions or multiples thereof, so that the men merely needed to record the number of portions eaten. The proportions of proteids, fats and carbohydrates were found by means of the mechanical diet indicator described by Professor Fisher in the American Journal of Physiology for April. During the first half of the experiment the men followed two rules only. The first was to thoroughly masticate the food up to a point of "involuntary swallowing," with the attention, however, upon the taste and enjoyment of the food rather than upon the mere mechanical act of mastication. Any "counting of chews" was discouraged as was also the forcible holding of food in the mouth, as experience of others, as well as the conclusions of Pawlow, had seemed to show that anything which tended to make eating a bore harmed rather than helped digestion. The second rule was to obey implicitly the leadings of appetite, both in regard to quantity of food and the choice between different foods. In order that this strict obedience to appetite might be the more easily followed, a wide range of choice of foods was supplied and no food was placed before the men which was not specially ordered by them.

This first half of the experiment, therefore, was really an experiment in natural eating, if we may assume that it is unnatural to hurry through our meals and to eat what is set before us, out of politeness, habit or limitation of choice. It was found that, as a consequence of the thorough mastication and obedience to appetite, a profound change occurred in the diet of the men. There was a large reduction in the quantity of liquids of all kinds at meals —water, tea, coffee and even soups. There was a reduction in the total daily average of calories consumed of about 10 per cent., a reduction of proteids of about 15 per cent., and of flesh foods (meat, fowl, fish and shell fish) of about 40 per cent. During the second half of the experiment the two rules above mentioned were continued in force but a third was added.

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This was, when the appetite was uncertain in its choice of foods, to give the benefit of the doubt to the low proteid and non-flesh foods and to foods regarded, provisionally, as the most wholesome. This influence of suggestion was never carried, however, to the point of eating against appetite. This still remained supreme. Suggestion was used merely to settle cases where appetite was not decisive.

During the second half of the experiment there was a still more pronounced change in the character of the diet. Comparing the diet in June with that in January it was found that the total calories had fallen about 25 per cent., proteid about 40 per cent. and the flesh foods over 80 per cent. or to about one-sixth of the original amount. Moreover the proteid had fallen to the level indicated as desirable in the previous experiments of Professor Chittenden, which is one and a half calories of proteid per pound of body weight.

Other physiological changes were noted. There was reduction in the quantity of the excretions and in the putrefactive and fermentative properties of the feces.

The body weights of the men during the first half of the experiment fell on an average of two pounds and in the second half fell further four pounds. Gymnasium tests were made to ascertain the strength and endurance of the men. It was found that their strength had remained practically constant through the experiment while their endurance increased during the first half about fifty per cent. and during the second half by as much more. A marked distinction was drawn between strength and endurance, strength being the utmost force which a muscle can exert once and endurance the number of times that a muscle can perform an exertion which is within its strength. Seven endurance tests were used: rising on the toes; deep knee bending; leg raising; raising five-pound dumb bells by the triceps; raising successively dumb bells of fifty pounds, twenty-five pounds, ten pounds and five pounds by the biceps; holding the arms horizontal and running. In many of these tests it was found that the will gave out earlier than the muscle; in short, that they were tests of grit, but in others it was found possible to work the muscles up to the point where they refused to contract further. Many precautions were taken to prevent any errors in these comparisons and only those records were used in the final averages in which the men were less tired in January than after the corresponding tests in June or records in which, both in January and June, the muscle was operated up to the point where it refused to contract. Even with all these precautions the improvement in endurance was found to be enormous. For instance, one of the men who in January could not raise a five-pound dumb bell with his triceps beyond the one hundred and eighty-fifth time, in June was able to do so 501 times, and another who could do the leg raising in January 50 times, in June could perform this 105 times; another who in January could lift the twenty-five-pound dumb bells with the biceps 10 times, in June could do so 27 times. The average improvement from January to June, making every possible allowance, was over 90 per cent. The men were not as stiff and

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sore after the June as after the January tests, in spite of the fact that they had performed double the amount of work.

So far as is known, no other than dietetic causes could have produced this result. The men led sedentary lives with less rather than more exercise than previously. They were no more regular in their habits and made no effort to live more hygienically except in the matter of diet. The dietetic factors were merely a wide range of choice of wholesome foods well cooked and appetizing, slow eating and obedience to appetite. As to which of these factors was the most important, and as to the manner in which physiologically they affected an improvement in endurance, there is much room for speculation. In the light of other facts it may at least be suspected that one of the chief reasons for improved endurance was a reduction in proteid.

Mental tests were taken consisting of the addition of numbers, these showing slight increase in mental quickness.

A complete account of the experiments will be published shortly. It was undertaken by Professor Fisher in connection with a series of statistics which he is collecting on the subject of labor-power, especially in relation to diet, somewhat similar to the series of statistics collected by the economist Nitti some ten years ago. In communicating to the editor of Science the foregoing outline of his experiment, he has asked that any readers of Science who may be able to supply data on this subject from personal experience or other sources will put themselves in correspondence with him.—Science, November 16, 1906.

The Omentum and Its Functions.

Gordon K. Dickinson (Annals of Surgery, November, 1906), discusses this subject in an interesting manner under the following heads: (1) Embryology; (2) Anatomy; (3) Histology; (4) Functions.

The first three are stated briefly, the views of different authorities cited, but no argument is undertaken by the author. The main part of the paper is devoted to an exposition of the functions of the omentum. Dickinson considers that the function usually attributed to it, "that of a protector of the intestines against chill," is one of the "fictions in medical literature which has long gone without protest." On the contrary, he considers the functions manifold and each of importance.

1. *Circulation.*—"The large blood-supply of the omentum makes it an important factor in maintaining an equilibrium of blood circulation." It is looked upon as a source of relief of arterial tension, being capable of storing up blood.

2. *Absorption.*—The omentum with its lymphatics is capable of rapidly absorbing not only fluids, but solids from the peritoneal cavity. The activity of intestinal peristalsis is reckoned a great aid to absorption as it distributes the fluids to all parts of the peritoneal cavity. Dilatation of the blood-vessels promotes absorption. Reduction in the energy of intestinal peristalsis,

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together with diminished activity of the diaphragm and loss of tension of the peritoneal muscles, retards absorption.

3. *Cohesive and Adhesive Properties.*—Any irritation by trauma or infection produces "an exudate composed of white-blood cells and fibrin, which produces a stickiness. This leads the omentum to become attached to the offending portion and to encapsulate it."

4. *Protective Role.*—A phagocytic action is attributed to it. On irritation of the peritoneum it is claimed that the staphylococcus albus makes its appearance and by its irritation induces a rapid transudation of phagocytes, thus preparing the cavity for an attack of more virulent germs. D. seems to assume that the phagocytic action is frequently called for by the passing of germs through the intestinal coats, thus putting the peritoneal cavity in a constant attitude of defense.

5. *Supplemental Functions.*—These are the ability to surround and encapsulate devitalized tissue, to neutralize toxines, and possibly to take on in part the splenic functions when this gland is destroyed.

Résumé.—1. The numerous blood-vessels and lax tissues of the omentum allow of storage of blood when the general arterial tension is high.

2. By venous anastomosis through adhesions, local congestion may be relieved.

3. Through its large surface freely exposed to surrounding parts in motion, it becomes a rapid absorber of fluids by the blood-stream.

4. By the lymph-stream it is a free carrier of white-blood corpuscles, encapsulating solid particles.

5. Through its cohesive tendency, apertures in the abdomen into which the omentum has been forced by intra-abdominal pressure become more or less completely closed.

6. Through its readiness to lymph formation and local proliferation, it becomes attached to infected parts, which are walled off, subsequently to be absorbed by phagocytic action; the peritoneal cavity thereby protected.

7. The majority of the phagocytes extruded into the peritoneum for its protection come through the omentum, largely from the general circulation, but in part from the tissues therein existing; subsequently to be attached to the surface of this tissue, taken into the lymph-stream, and subjected to the cytolytic influences existing there.

8. Lack of development of the omentum, or loss through operation, renders one less resistant to peritoneal invasion.

9. Hemolymph-glands of the splenic type existing in its base supplement the spleen if the latter be removed or its functions interfered with.—B. B. Davis.

Spirochaetes Pallida.

At the meeting of the Douglas County Medical Society, November 27, 1906, Dr. Alfred Schalek demonstrated slides containing Spirochætes pallida. He said that after the repeated claims of the discovery of the cause of syphilis,

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during the last twenty-five years, followed by disappointments, he would not be surprised to see the profession pessimistic in regard to this last discovery. But since Schaudinn has published his first announcement in Berlin, March, 1906, hundreds of reports have come in from all over the world affirming his statements. Of the requirements necessary for the genuineness of a specific germ, two are complied with. The spirochætes are found in primary and secondary lesions of syphilis; they are found in the different internal organs, in the blood of hereditary syphilis, and occasionally in the gummata. The last proves the fallibility of our present belief of the innocuousness of tertiary syphilis. The second point to which these micro-organisms conforms is their absence from any other pathological condition. In all the literature on this subject only two dissenting voices are found. No pure cultures have as yet been grown and consequently inoculations are impossible. Metchnikoff, who has recently succeeded in inoculating apes with syphilis, has also found the spirochætes in the resulting lesions. The spirochætes do not belong to the class of bacteria and are not related to the spirillæ, but are nearer allied to the protozoa. They are about 6 to 10 micromillimeters long and about ¼ wide. They have corkscrew windings, are motile in the tissues and can be kept so for some time in a physiological salt solution. They take the stain only with difficulty and are seen only with difficulty. The specimens are prepared in a hanging drop or in a smear and must be looked over for some time to find the germ even if present.

The present specimen, for which the doctor is obliged to Dr. M. Herzog, of Chicago, is of special interest, showing the far-reaching possibilities of this new advance in the etiology of syphilis. The patient from whom it was taken came to the hospital with some obscure lung trouble. In the sputum, stained with methylen blue, spirochætes were seen by accident. The patient was put on mercury and potassium iodide, as an experiment, and recovered shortly. Everybody knows how almost impossible it is at the present time to diagnose syphilis of the internal organs.

The Abdominal Reflex in Enteric Fever.

In the April number of Brain, 1906, Rolleston calls attention to this subject, and reports a series of cases in support of his observations. The author relates that Rosenbach was the first neurologist to call attention to this sign, but since that time it has been emphasized by Strumpell, Babinski and van Gehuchten, and others in such organic conditions as hemiplegia, paraplegia, multiple sclerosis and tabes; he also takes into account the fact that some authorities claim it to be inconstant in health, but in opposition to such views are quoted the results of Müller and Seidelmann who report 3,000 observations on individuals free from nervous or abdominal diseases and in no case save one was this reflex found absent, and that one was questionable, the conclusion being that in a young person of either sex if this reflex is found absent some pathological alteration is to be found. Jamin first drew attention to the loss or impairment of this reflex in the

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right side in acute conditions such as perityphlitis, gall-stone colic, and cholecystitis, and in the more chronic conditions such as ascites, tuberculous peritonitis, tumor, etc., an active response could often be obtained. Sicard in 1905 reported observations on this reflex in twenty-six children suffering from enteric fever and other than this no previous report had been made.

For practical purposes the reflex is divided into two parts, the supra- and the infra-umbilical zone. In enteric fever the infra-umbilical reflex is the first to be lost and the last to return, the supra-umbilical may remain active throughout this disease or, as is more commonly the case, a slight response rapidly exhausted after a few stimuli have been applied may be obtained in the epigastric region or sides of the abdomen alone when stimulation of the rest of the abdomen provokes no response. The author observes in his report sixty cases, all of whom were certified on admission to hospital to be suffering from enteric fever. During the acute stage observations were made daily. He then appends a series of tables, giving age and sex of patients, the relation of the abdominal reflex when first examined to the stage of the disease, also one showing the relation of the abdominal reflex to the pyrexia, another in which is tabulated the date that the abdominal reflex became active, and lastly is given a table showing the relation of the abdominal reflex to the knee- and ankle-jerks. Reference is then made to the method of elicitating this reflex, conditions required and errors to be avoided, and in conclusion the following summary is appended:

1. The abdominal reflex is affected in a very large number of cases of enteric fever, the percentage of cases in which it is entirely lost exceeding those in which its normal activity is disminished only.

2. From its absence under 50 being confined to certain nervous diseases and acute abdominal conditions, notably appendicitis and enteric fever, the absence of the abdominal reflex in a given case of continued pyrexia in any patient below 50 is of considerable diagnostic value.

3. The comparatively transient nature of the affection of the abdominal reflex in enteric fever is a striking contrast to the more chronic affection of the knee- and ankle-jerks in diseases associated with peripheral neuritis, e. g., diphtheria.

4. Return of a lost reflex, and *a fortiori* resumption of its normal activity, are a valuable indication of commencing convalescence, and often correspond with lysis and characteristic changes in the feces and urine.

5. The objective sign of return of the reflex is often associated with the return of the subjective feling of ticklishness normal to the individual.

6. In reappearance of pyrexia in convalescence, the condition of the abdominal reflex is a valuable index of the nature of the pyrexia.

7. No constant relation exists between the condition of the abdominal reflex and that of the tendon reflexes.

8. The frequency, degree, and duration of impairment of the abdominal reflex are, as a rule, in direct proportion to the age of the patient.—F. E. COULTER.

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Society Proceedings.

THE Dodge County Medical Society will hold their annual meeting at Fremont, January 10, 1907. Several papers will be read by members of the society and plans for a big meeting are being made.

THE annual meeting of the Mississippi Valley Medical Association was held at Hot Springs, Ark., November 6, 7, and 8, 1906. The following officers were elected: President, H. Horace Grant, M. D., Louisville, Ky.; first vice-president, G. A. Hebert, M. D., Hot Springs, Ark.; second vice-president, T. C. Witherspoon, M. D., St. Louis, Mo.; secretary, Henry Enos Tuley, M. D., re-elected, Louisville, Ky.; treasurer, S. C. Stanton, M. D., re-elected, Chicago, Ill.

Columbus, O., was selected as the next place of meeting, during October, 1907.

It was voted at this meeting to offer a prize of $100 to members of the association for the best essay recording some original research work in the Mississippi valley. A committee of three was appointed, who will formulate rules of the contest, which will be published later.

THE Omaha-Douglas County Medical Society met in regular session in the Commercial Club rooms in Omaha on the evening of November 27, 1906.

Dr. Alfred Schalek presented slides of Spirochætes Pallida, a detailed account of which appears elsewhere.

Dr. J. E. Summers presented a specimen showing the early conditions of carcinoma of the cervix uteri.

Dr. Walters showed an appendix from a young woman which showed evidences of inflammation and contained, as a possible causative agent, a number of pin-worms. He also presented a specimen showing a post-typhoid ulcer of the intestine which had ruptured with fatal results, ten days after the patient was discharged as well.

Dr. Lord's report on "Medical Publication" from last preceding meeting was made a special subject of discussion. After a number had spoken, a motion prevailed expressing the society's approval of the proposed plan, whereby the Porter-Ryerson-Hoobler Co. assume the business management of the WESTERN MEDICAL REVIEW, while the control and literary management remains with physicians representing medical societies.

Prof. H. B. Ward, of the State University, gave a very entertaining talk on "The Salmon Industry of Alaska from a Sanitary Standpoint." He said in brief that he had found the Alaska salmon remarkably free from parasites and had found only two specimens of pathological growths among millions of fish handled at the cannery where he made his observations.

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He expressed himself as favorably impressed by the sanitary conditions of the salmon industry in Alaska and also by the prime physical condition of the fish of that region at the time of catching.

THE medical profession of the North Platte valley met for their second step toward organization on November 7 at Scottsbluff, Neb. After a dinner tendered by the Scottsbluff physicians an enthusiastic audience was called to order by temporary secretary Dr. H. P. Sheldon, of Scottsbluff.

On motion of Dr. Crawford, Dr. A. G. Emerson, of Scottsbluff, was called to the chair and the guests were welcomed by Dr. Sheldon.

Dr. E. S. Empey, of Torrington, Wyo., responded pleasantly, after which Dr. Georgia A. Fix, of Gering, Neb., gave an impressive history of pioneer practice in the North Platte valley, ably demonstrating her pleasing ability to cope as successfully with the present issues as she did with the more perilous problems of pioneer days.

Mrs. E. S. Empey, of Torrington, Wyo., rendered a pleasing musical selection, which was followed by an able address on Society Organization, by Dr. Andrew Crawford, the senior practitioner of Scottsbluff. The paper was favorably criticised by Dr. Anna A. Cole, of Minatare.

The permanent organization of Scott's Bluff County Medical Society will occur in January and all members of the profession in the North Platte valley are urged to become active members.

The scientific program for the January meeting will consist of a symposium on the subject of Typhoid Fever, as follows:

The History and Clinical Features Peculiar to the North Platte Valley, Dr. Georgia A. Fix, Gering, Neb.

Typhoid in Its Topographical Relation, Dr. E. S. Empey, Torrington, Wyo.

Drainage and Other Preventive Measures, Dr. A. J. Stewart, Mitchell, Neb.

This program will be followed by the annual banquet tendered the doctors, druggists, dentists and nurses of the North Platte valley.

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Society Appointments.

NEBRASKA STATE MEDICAL ASSOCIATION, MADISON, NEB.

December 5, 1906.

Dr. H. Winnett Orr, Acting Secretary, Nebraska State Medical Association, Lincoln, Neb.

DEAR DOCTOR: It appearing that the several scientific sections of the State Association at the last annual meeting failed to elect chairmen for the sections for the ensuing year, and inasmuch as the physicians who served in the capacity of chairmen during the past year do not care to continue the work for another year, it devolves upon me to appoint chairmen for the sections for the year 1906-07, and I therefore make the following:

Section on General Medicine—Dr. J. M. Aikin, Omaha.
Section on Surgery, Ophthalmology and Otology—Dr. P. H. Salter, Norfolk.
Section on Obstetrics and Gynecology—Dr. Inez C. Philbrick, Lincoln.

You will please notify the appointees at once, and have the appointments published in the official journal.

Cordially and fraternally yours, F. A. LONG, President.

Society Programs.

The Elkhorn Valley Medical Society.

In December, 1896, a number of physicians of northaestern Nebraska met in Norfolk and organized the Elkhorn Valley Medical Society. Constitution and by-laws were adopted and twenty-one members admitted into the society. From this small beginning the society has had a steady, healthy growth, until the present membership numbers 125 in good standing, and covering a territory reaching from Omaha to the headwaters of the Elkhorn Valley. Meetings are held twice yearly, in January and July. The next regular annual meeting will be held in Norfolk, Neb., January 15, 1907, at which time the following program will be presented.

1. The Origin and Progress of Chorio-Epithelioma.....E. C. Henry, Omaha
2. Some Facts of Importance in the Behavior of Certain Infections. D. W. Beattie, Neligh
3. Corneal Ulcer and Its Treatment.....F. E. Franchere, Sioux City, Ia.
4. Paper.....Palmer Findley, Omaha
5. Paper.....H. G. Morris, Creston
6. Duodenal Ulcer, with a Report of a Case of Perforation..M. J Ford, Omaha
7. Paper.....Alfred Schalek, Omaha
8. Functional Neuroses.....J. M. Aikin, Omaha
9. Paper.....Halle S. Ewing, Omaha
10. Paper.....C. C. Allison, Omaha
11. Paper.....Robt. R. Hollister, Omaha

Stanton, Neb. W. R. PETERS, M. D., Secretary.

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THE JOURNAL
OF THE
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ASSOCIATION

LINCOLN, NEBRASKA

A. L. MUIRHEAD, M. D.,
Omaha, Nebraska

Vol. XI DECEMBER, 1906 No.

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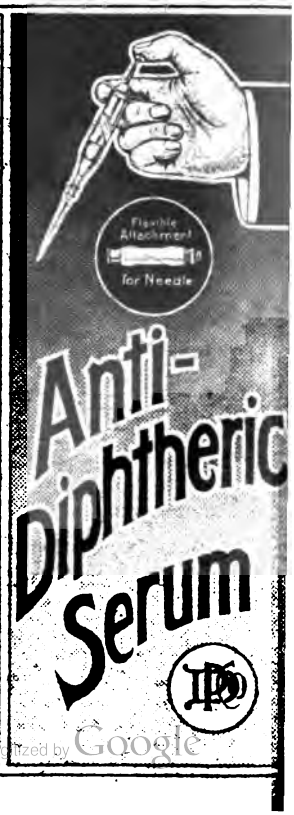

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THE CARE OF GROWING GIRLS.

One of the most responsible tasks of the family physician is to advise parents of girls entering upon their 'teens, as to the diet, mode of life, and hygienic measures best calculated to preserve the health of budding womanhood. In dealing with these cases the practitioner is often called upon to treat the anemia which in such a large proportion of instances characterizes the unfolding of the growing girl. Full well does the family doctor grasp the meaning of this anemia, and the vast importance of combating it before it is too late,—before the impoverished condition of the blood of puberty has left its imprint upon the powers of resistance of the adult organism; has done permanent damage to the future woman and the future mother.

Unsuitable diet, an overindulgence in sweets or spices, over-study, lack of fresh air and physical exercise, indulgence in late hours and abandonment to novel reading, to tight lacing, and other abominations of dress, contribute their quota to the causes of anemia in the growing girl. Each of these factors is, of course, removable by good common-sense advice to parents and by proper exercise of discipline. Still, when the damage has been done, we must assist nature in its generous work of restoration, and here it is that we are obliged to give that sovereign cure of impoverished blood, iron, in such form as may best be suited to these cases.

The question as to what form of iron we should give to produce the best possible effects has been solved by both experimental and clinical researches conducted during the past twenty-five years—ever since Bunge and Hamburger experimentally demonstrated the inferiority of inorganic preparations (Morat and Doyen, Traité de Physilogie, Paris, Masson 1904, I, 467). Iron, in the anemia of puberty, produces the best effects when given in a form that will stimulate digestion and increase assimilation, i. e., in the form of the peptonate. With it should always be combined that second hematinic which has been shown to enhance the value of iron,—manganese,—and the two are best given in the form of the well-known solution, styled "Pepto-Mangan (Gude)."

With this may be given, in the anemia of growing girls, minute doses of Fowlers' Solution, or else equally small doses of strychnia which may be incorporated with Pepto-Mangan as indicated in individual cases.

Pepto-Mangan has a great advantage over other forms of iron medication in that it does not constipate. Girls at puberty, however, are notoriously prone to constipation. Therefore, this should receive proper attention, chiefly in the regulation of diet, including a sufficient amount of fruit, raw and cooked, and of cereals giving a large residue of cellulose.

With this method of treatment many a physician has achieved success which was rewarded tenfold, by the sight of rosy faces and bright eyes.

The Practical Clinical Application of Acetozone: Report of Two Cases.

By T. M. Stewart, M. D., Beresford, S. D.

I have used Acetozone about two years in my practice whenever I have a case of high temperature caused by septic conditions. I wish to report two cases, treated with it, which are of different character.

Case I.—George G., aged 40, had been under treatment for typhoid fever for five weeks. I do not know just what the treatment was but suppose it was mild chloride and the sulphocarbolates chiefly. When I was called in the case I found the temperature 104°, the patient very weak and emaciated, and unable to take food without vomiting. He had a small axillary abscess under the right arm, with some swelling and tenderness down to his hip on that side. He complained of very severe pain in the head, extending down to about the hips. Diagnosis septicemia.

Treatment, 30 grains Acetozone in two quarts of water; this is to be taken in divided doses within twenty-four hours, and a saline laxative every twenty-four hours. The temperature was reduced to normal in twenty-four hours and was held there by giving about half the original dose of Acetozone until complete recovery. I gave him tonics of quinine and iron after the temperature became normal, and withdrew the Acetozone the seventh day after the treatment was begun.

Case II.—Miss J., aged 22, had an operation for appendicitis and after five weeks had an acute diffuse peritonitis caused by the rupture of a secondary abscess. This was a very bad case and without Acetozone I believe the patient would have died, but the temperature was easily controlled by its use and the intestinal tract rendered aseptic. It was administered by the mouth and by high enema. I did not find it necessary to give opiates for the pain after the first two days. The patient is now in much better condition than she was at any time since the operation and prior to this sickness.

I cannot too highly recommend to my professional brethren the use of Acetozone in all septic conditions, adding one word of caution, however: don't be alarmed if the temperature becomes subnormal; just feel the pulse and you will find it slow, but large and smooth.

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THE ANEMIAS OF CHILDHOOD.

The anemias of early life are usually sequels of the acute diseases common to this period. The exanthemata are especially liable to be followed by a depreciation of blood quality, and a protracted convalescence often depends on this one condition alone. Moreover, the frequency with which physical stigmata or infirmities actually date from an attack of measles, scarlet fever, diphtheria or any of the other similar diseases of childhood, can often be properly laid at the door of insufficient or improper care during the very important stage of convalescence from these diseases.

It should be recognized that the hematogenic function, while exceedingly active in childhood, is yet very susceptible to all inhibitory influences, among which the toxins generated in the course of the acute diseases are most common. When a storm infection of measles, scarlet fever or any of these similar ailments is passed, there must follow a period of reconstruction. If the damage has been slight as a result of a light storm or an unusually strong structure, the reconstructive process places little demand on the resources of the individual. But if the storm has been unusually severe and the structure ill-prepared to meet its fury, the rebuilding process is certain to be long and laborious. Deficiency in the quality of the blood is one of the greatest handicaps at this time, and the clinician should recognize this as one of the most important indications for therapeutic assistance.

The action of Pepto-Mangan (Gude) is always very marked in these cases, and it is interesting to note how rapidly children respond to its upbuilding influence. A marked increase in hemoglobin at once follows its use and the red cells multiply rapidly. With improvement in the blood constituents there is a corresponding increase in the whole bodily tone, and it only takes a few days to carry the average patient safely away from the dangers of a trying period.

Pepto-Mangan (Gude) is therefore a very valuable tonic in childhood, and unlike so many of the ordinary hematinics it can be given with impunity to the youngest infant. It has marked alterative properties, and in strumous or marasmic conditions it is especially valuable. It is absorbed rapidly, and is never rejected by even the weakest stomach.

In early life its administration is best effected by giving it in milk, and the dose should range from ten drops to two teaspoonfuls, depending, of course, on the age of the patient.

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